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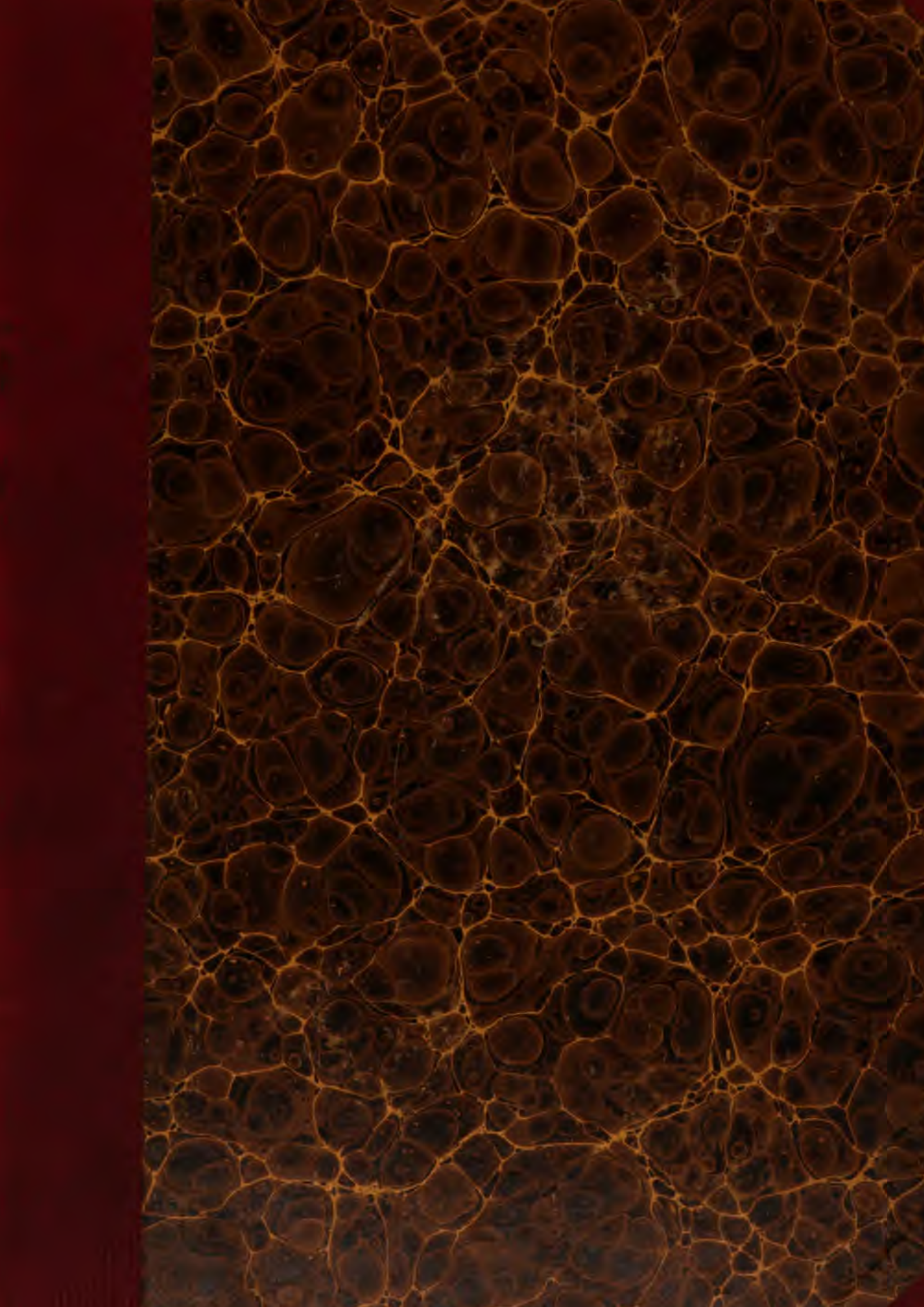

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Original Communications.

A DISCUSSION OF THE MERITS OF THE DIFFERENT ARTICLES OF INFANT DIETARY.*

BY W. J. GREIG, B.A., M.B., L.R.C.P., TORONTO.

In introducing this subject to you I need offer no apology. In infants and young children diseases of the digestive tract are much more frequent than of any other part of the body. Especially during the hot season is this the case, when the child's food is so apt to sour either before or after ingestion, owing to the presence of micro-organisms. Again, an infant is too often given improper food, which it is unable to digest.

These facts make the subject a very important one, for from infants men and women grow, and if we have not healthy thriving infants how can we expect to have healthy, vigorous, intellectual men! The future of a child depends to a great extent on its physical development during the first few years of life.

The subject is of special interest at the present time also, owing to the constant advance of the purely scientific aspect of medicine and the better methods of utilizing these facts. It is not my intention to discuss now the amount of food which it is right to give a child at different ages, nor to refer to the proper intervals of feeding. Both of them are very important questions, but which the limits of this paper will not allow me to deal with. Assuming then that we have all necessary knowledge on these points, let us endeavor to enquire into the merits of the different articles of food which are given to infants and young children.

An infant suckled at the breast by its mother starts in life under the best possible auspices. It starts with a natural advantage, and if the suckling can be continued for nine months or a year nothing more can be desired, under average conditions. But, unfortunately, many events may occur to deprive the child of this natural advantage, and it is then that the respective merits of wet nursing, prepared foods, and cow's milk are discussed. It is then that the physician should be able to give advice. Under such circumstances, how often the guidance of the child's food is based on an advertisement read somewhere, or a pamphlet received either by the friends or the physician. We are all inundated by showers of documents, calling our attention to all sorts of proprietary medicines, and to infant foods.

Henri Nestlé will tell you that his food is better for the child than the mother's milk, or cow's milk. I ask how often are we deceived by these bold statements, and without knowledge or investigation believe the word of the man who has every incentive to push his commercial article on our notice, and order the advertised article for our patient.

All authorities (excepting the manufacturers of some of the infant foods) agree that the mother's milk is the most suitable food for the child. Starting out with this hypothesis, any substitute for mother's milk should approach it as nearly as possible in constitution. This presupposes a knowledge of its chemical constituents. Analyses made at different times have not agreed, varying in their statement of the amount of fat and casein present. The explanation is that the constituents of the milk vary at the different periods of lactation; also with the condition of the mother's health, and with the period of milking. That is, the foremilk, mid-milk, and strippings are very different in the relative proportion of their constituents. The analysis which is generally accepted at the present time, and one made with a full knowledge of all modifying circumstances is as follows:

Reaction.	Faintly Alkaline.
Spec. gravity	1028 to 1034
Fat	3 to 4%
Casein	1 to 2%
Sugar	6 to 7%
Salts	1·5 to ½%
Total solids	12 to 13%
Water	87 to 88%

---

* Read before the Ontario Med. Association, June, 1891.

The milk of the wet nurse is the nearest approach to the milk of the mother, and without doubt a good wet nurse is a very desirable person. But the physician must be careful. A wet nurse must be a perfectly healthy woman. If she has any constitutional ailment, the babe is apt to be affected thereby. If she has syphilis, or tubercle, or rickets, the babe will suffer.

If any functional or organic disease is present, such as indigestion, gonorrhœa, tubal disease, or nephritis, the milk will be affected thereby. She must not menstruate, nor be pregnant, or the milk will be unfit for use. She must be mentally at ease, for mental disturbance is inconsistent with perfectly healthy milk. She must be moral and of good temper and free from licentious habits of any kind. Because the character of the milk is affected by these things, and quantities of albuminoids not natural to healthy milk will be excreted. J. Lewis Smith mentions a case in his practice, where the nurse was allowed to visit her home on Saturday. On her return, the child was seized with an attack of diarrhœa and of vomiting and died. Enquiry revealed the fact that the nurse had spent her visit in debauchery.

Again, the milk of the wet nurse must be of the same age as that of the mother, or it will not agree. If we add to all these considerations the fact that the expense would be beyond the purse of the average family, it is apparent that it is only under the most favorable circumstances that a wet nurse can be thought of. But granted a woman, whose milk is the same age as that of the mother's, free from constitutional taint and present disease, kind disposition, moral, good temper, free from worry, and you have the best possible substitute for the milk of the babe's own mother.

The first of the specially prepared foods to which I wish to call your attention is condensed milk. This article is prepared by evaporating the water from cow's milk and thus producing a thick semi-fluid preparation, which on dilution with water is supposed to resemble the original from which it was made. In some preparations cane sugar is added as a preservative, but others have not this sugar added. Condensed milk is very convenient. It comes to the house along with the groceries. There is no trouble with the milkman, or the servants. No care is necessary to preserve the milk during the hot weather. If it has been ordered by the physician, the mother's only care is in the proper dilution, and in feeding. Everything is supposed to be all right when she opens the can. But fraud may be perpetrated in this, as well as in fresh cow's milk. Analyses show that the contents of the cans while generally constant, do vary sometimes, the variability differing with the brand, but there is one noticeable deficiency in them all, viz: in the fat. In the cans as opened, the fat is 10%; dilute this nine times with water and the per cent. is 1.35%, while it should be from 3% to 4%. It is said that in New York city all the condensed milk companies sell cream, which gives a color to the suspicion that the product of their factories is made from skimmed milk. Dr. Chandler, in a report to the Board of Health of N. Y., mentions the deficiency of fats, and stated that in one sample only 1¾% was found. Dr. Rotch, of Boston, has pointed out also that often the per cent. of casein is deficient. Another objection is that in the sweetened varieties, the sugar used is cane—while milk sugar is the natural ingredient. The difference lies in the fact that cane sugar ferments more easily; that is, it undergoes the alcoholic and butyric acid fermentation; milk sugar will undergo the lactic acid fermentation, but this is checked by sterilization.

Let us now enquire what the clinical results from feeding on condensed milk are.

It has been noticed that infants fed on it look well, grow fat and have good digestion; but lack vitality. They are easily prostrated by an attack of diarrhœa, or any acute disease. The reason lies in the deficiency of fat, which bears the proportion of 20 parts to one of the nitrogenous elements, while it should be 12 to one.

Louis Park states that infants fed on this have lately been shown to suffer from a form of scurvy. Hæmorrhage takes place under the periosteum of the long bones. The disease is often associated with rickets, and is rapidly cured by changing the food to fresh cow's milk.

Another disadvantage of this form of milk is the atrocious ideas that people have (even physicians) of the proper amount of dilution. It has been given in the strength of ʒj to a pint of water, and from this down. Many a child has been starved to death on this diet. Supposing a preparation of the average strength, 28% of water, 72% of solids, and of this latter, 50 parts sugar, 10 parts fat, 10 parts albuminoids, and 2 parts ash. If 1 part of this be taken and 9 parts of water, we have a mixture resembling the average analysis of mother's milk in all but the fat. Let 1 in 9 be the average dilution, slightly more for a young infant, and less for an older child. If you add to this, ʒj of cream for each ℥j of the diluted mixture, you bring up the per centage of fat to the requisite amount.

One conclusion then is that condensed milk properly prepared and sterilized is a very fair food for infants. It is not so desirable as cow's milk for reasons mentioned before, but often owing to idiosyncracy when cow's milk will not agree, condensed milk will. In fact, it will sometimes agree when nothing else will.

Next, *the prepared foods*—these are advertised so extensively and so persistently that notice must be taken of them, even though if their merits be considered they are *beneath* notice. They are articles of commerce, and no matter how carefully made at first, in the race for money the original composition is soon forgotten or neglected in the effort to produce a cheaper article. Allow me to name the list that I found in a neighboring drug store—first Nestlé's, then Mellin's, Ridge's, Imperial Granum, Lactated, Carnrick & Reid's Lactapreparata, Carnrick & Reid's Royal Food, Martin's Concentrated Cardinal Food, Revalenta Arabica, Neave's, Hugo Hensche's, Eupeptica, Papoma, and there are dozens more which are not in the Canadian market. A chemical examination of the contents of tins by experts, reveals the following interesting facts, which are true of all the varieties:—

1st. There is a lack of uniformity between the productions of different years, and in the contents of the tins produced in the same year. This is a dangerous fact, for we do not know what we are giving. It is not what might be expected in an article so highly praised, so well medaled and intended for so important a purpose.

2nd. They advertise that there is no starch—but examination reveals a superabundance of starch in the majority of the tins. The manufacturers claim that the starch is converted into dextrine and sugar under a pressure of 100 atmospheres by overheated steam. Dr. Rotch has found that, after diluting the food as directed, there is still 3½ parts out of 8¼ of solids of unaltered starch.

3rd. Ephraim Cutter, M.D., for Gaillard's *Medical Journal*, some years ago examined microscopically all the infant foods in the market. He found in Ridge's, for instance, beard of wheat, wheat starch mass, starch bundles apparently of maize, caked mass of starch grains and granules. In many cases the cell membranes were not equally crushed, and in many cases not crushed at all. McDonagh states that the fragments of the microscopical elements exhibit the appearance of mechanical destruction and not that brought about by heat.

4th. All the foods contain abundance of starch except Mellin's, in which it is converted into glucose. Even in some of the tins of this food there is a trace of starch, while the per centages of the other ingredients are not what they should be.

Let us now compare a chemical analysis of Nestle's food prepared according to the directions on the tins, with the accepted analysis of mother's milk :

Mother's Milk. Alkaline	Reaction.	Nestle's Food. 1 in 10 of water. Neutral.
None	Starch	3.65%
3% to 4%	Fat	.17%
1 to 2%	Albuminoids	.75%
6 to 7%	Sugar	3.54%
.1 to .2%	Ash	.14%

That is, the food is defective in fat, sugar, albuminoids, and contains almost 50% of the whole amount of solids in starch, which an infant under seven months of age has no power to digest.

I have stated that Mellin's food contains no starch. Let us examine that and endeavor to ascertain its suitableness for a child's food. It is prepared as follows :

Food	3	parts.
Milk	48	"
Water	48	"

Of this there are 8.26 parts of solids.

Comparative analysis as follows :

Mother's Milk. Alkaline.	Reaction.	Mellin's Food. Neutral.
None	Starch	Usually none
3% to 4%	Fat	2.004%
1% to 2%	Albuminoids	2.17%
6% to 7%	Sugar	3.69%
.1% to .2%	Ash	.40%

That is, the fat and sugar are deficient, while the ash and albuminoids are in excess.

These two analyses may be regarded as giving typical results. For though the different foods have the constituents in different proportions, they are all very far from bearing a resemblance to mother's milk.

(*To be continued.*)

INJURIES FROM THE TOO LONG USE OF PESSARIES.*

BY DR. J. H. HAMILTON, ATTWOOD, ONT.

Perhaps of all the diseases met with by the every-day practitioner, the most common is some of the forms of uterine displacement so graphically described by our various authors on "Woman and her diseases," as retroflexion, retroversion, anteflexion, anteversion, prolapsus, inversion, etc. Why we should have so much trouble of this kind is to me a mystery, inasmuch as such disorders are attributed to over-work, straining, etc. When we know that the present age is not one in which woman figures as a slave, and when we see our healthy-looking neighbors from Germany and other countries where out-door work is not uncommon, passing through life without any troubles of the kind—it leads us to think that the less vigor we see in life and the finer the organization, the more liable we are to see all these forms of uterine displacement. A want of vitality or tonicity in the organ itself and its attachments are no doubt important factors in the causation of the trouble. Dr. Martin, of Berlin, ascribes their causes to defective involution, *i. e.*, where the placenta is adherent to the posterior wall and the site thus remaining longer in a state of sub-involution and consequently longer than the anterior wall, the fundus turns to the front and we get anteflexion, and *vice versa*, by sub-involution of the anterior wall we get retroflexion; but I have seen many cases, without a shadow of a doubt, of genuine retroflexion in young women where sub-involution was unknown, thus going to show that a uterus can be retro- or ante-flexed by other means—as falls, stepping suddenly out of carriages, horse-back riding, etc.

For the relief of such troubles, the ingenuity of the specialist in this class of diseases has been taxed, and we have had many devices for the relief of these disorders. The history of pessaries shows that we have had, to date, about 150 kinds, together with various uterine supporters for these disorders; and most authors, together with the voice of every-day experience, are unanimous in proclaiming them nearly all faulty. The pessary first made by Hodge was shaped like the letter U and it was found when used any length of time to be injurious to the coats of the bladder, going so far sometimes as to puncture them; and when the two ends were afterwards united, it was found that the cross-bar pressed on the urethra and interfered with its function. Although I have no doubt the Hodge pessary is at the present time more used than any other where a pessary is any use at all.

In years gone by they were made mostly of metal, but at the present time are nearly all made of gutta percha, vulcanite, or, better still, a round of wire covered with india rubber and moulded to any shape we desire.

I have found that the great trouble with all pessaries is, that a small one not reaching from the ischiatic bones to the symphysis, and well over, is useless, and a large one, of whatever form, is liable to produce ulceration of the vagina, leucorrhœa, etc., as well as destroying the elasticity of that organ when worn continually; and I have found in many cases that a pledget of iodoform gauze, borated cotton wool, or any other such substance, gives more relief in cases of minor displacements than the hard unyielding pessary; and the rubber ball with a tube attached, which can be easily placed by the patient and then filled with air and tied, is an excellent device. I have known this to keep *in situ* a prolapsed womb in an elderly lady where the shrivelled womb was not of great weight.

Now we all know that whatever may be the use or abuse of pessaries, a great many are worn in this country, and it is the duty of every medical man when he once places one to not forget it, and watch carefully the results. After they are worn for a time, I have heard of a few women who forgot they were there and lost their lives in consequence, and I will give you a case in point.

In November of 1889, Dr. Philp and myself attended a married woman, æt. 57 years, who had an attack of pelvic peritonitis, which afterwards developed into general peritonitis, and we found, on making the first vaginal examination, a pessary shaped like a Hodge and so corroded and adhesive that it could scarcely be removed; it was made of metal and rusted nearly through. When we called her attention to this foreign body, she recollected of a medical man in a town where she formerly lived placing it there 26 years ago. This neglect on her part cost her her life.

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* Read before the Ont. Medical Association, June, 1891.

We also have a few cases of vesico-vaginal fistulæ, from the too long use of faulty pessaries, and Dr. Baker Brown, some years ago, in lecturing on operations for vesico-vaginal fistula, says: "Next to labor, stone, so far as my experience goes, is the commonest cause of fistulous communications between the bladder or urethra and vagina. Another source of these lesions, never to be lost sight of, is the long-continued pressure from the *old-fashioned wooden pessary*, a terrible instrument which unhappily is not yet obsolete." But in defiance of all that may be said of the injurious use of pessaries, we see many cases where they are found highly useful, and where they are so, they are so much less cumbersome than the uterine supporters in use, that their choice by patient and physician is a foregone conclusion.

Selected Articles.

THE PATHOLOGY AND TREATMENT OF CHRONIC OVARITIS.

The study of the pathology of ovaritis derives a special interest from the fact that the ovary differs from all other organs of the body, in that its function is performed at the expense of a portion of its structure which is never restored to its original condition. The rupture of each Graafian vesicle in ovulation, causes the destruction of the vesicle. Rudimentary vesicles mature and repeat the function of their predecessors, and are in turn destroyed Finally the supply ceases, and the ovary, worn out in structure, becomes functionally incompetent long before the general organization has reached the end of its life and activity. In all other organs of the body, function is effected through cellular disintegration and restoration.

This pecularity in the natural history of the ovary makes it difficult for the superficial observer to distinguish between the normal degeneration, and the structural changes which result from chronic ovaritis. Experts also find it no easy matter to distinguish, by gross appearances, the atropy of old age from the cirrhosis of inflammation.

In discussing the pathology of ovaritis, I shall briefly point out some of the established facts, which are of most interest in relation to the diagnosis and treatment of this affection, and omit all that is ill-defined, uncertain, and of little interest to surgeons.

The pathology of ovaritis is characterized by changes of structure, brought about chiefly by areolar hyperplasia first, then by atrophy of the normal tissues, and finally by a condition of cirrhosis. In this respect the morbid process and its products more resemble degeneration than an inflammation such as is observed in other organs. It is more like certain forms of chronic nephritis in the natural history of its pathology. Owing to these peculiar and distingushing features, the affection has little in common with acute puerperal or non-puerperal ovaritis, or with secondary acute ovaritis due to peritonitis and therefore all such conditions will be carefully excluded from the discussion of the subject in hand.

The first variation from the normal towards the pathological is deranged innervation; the ovary, owing to its important office and intimate relations to the other organs, being peculiarly prone to reflex disturbances. These, though temporary as a rule, when oft repeated and prolonged in duration induce changes in the circulation, which impair nutrition and finally produce changes of structure. This ovarian hyperæmia, the first step in the process, may subside and complete recovery follow. Reliable evidence of this has been obtained, first by clinical observation of cases which gave all the signs and symptoms of ovarian congestion, and which, under careful management, completely recovered. Secondly, by inspection after laparotomy. I have not infrequently found a prolapsed, tender and painful ovary which, upon inspection after opening the abdomen, was markedly hyperæmic, but presented no apparent change of structure, except œdema. After fixing it in place by stitching the utero-ovarian ligament to the upper border of the broad ligament, the signs and symptoms have all subsided. The continuation of the hyperæmia slowly produces those structural changes which are invariably affected by prolonged malnutrition. The first noticeable changes take place in the blood-vessels themselves. They become dilated and a peculiar degeneration of their walls occur. These changes have been elaborately studied by Dr. E. Noeggerath; he advanced the idea that these vascular changes were closely related to the genesis of ovarian cystomata. This may be true in certain cases, but it more frequently ends in hyperplasia of the stroma which gradually goes on, and in time crowds out all the normal structural elements of the ovary. Finally, a true cirrhosis is produced. With these changes in the blood-vessels, the circulation is interrupted to a degree that causes œdema, which increases the size of the ovary and renders it softer. Apoplexies sometimes occur, and occasionaly one or more of the blood clots may be seen near the surface. These conditions can be distinguished from a diseased vesicle by the staining of the tissues around the clot. This last-mentioned lesion occurs in the early stage of the ovaritis, and gradually disappears as the process of hyperplasia proceeds to a complete cirrhosis. These changes explain some of the important facts in the clinical history. The ovary which is found enlarged, softened and tender to the touch, will, in months afterward, appear subnormal in size. Likewise the same lesions may be recognized upon inspection after laparotomy, if one has become familiar with them by previous study.

While hyperplasia of the stroma is going on, the follicular elements undergo certain changes. The contents of the follicles become cloudy from degeneration of the epithelial elements. The gross appearance of the ovary at this time would lead one to suppose that there were a number of vesicles approaching maturity, but the uncommon number of these distended vesicles is evidence that they are abnormal.

The full value of a knowledge of the gross pathology of ovaritis can be fully estimated by those who have mistaken the normal for a pathological degeneration of the ovaries, and have removed them, to learn subsequently, through the microscopist, that they were not diseased. I well remember hearing an interesting discussion regarding cases in which one ovary has to be removed for advanced disease. The question was: Should the other ovary be left or removed if there is no positive evidence of its being diseased? Much was said, pro and con, but not a word was uttered about how to detect pathological changes which should decide the matter. The morbid appearances which aid the surgeon in deciding when to remove an ovary and when not to remove it are as follows:

Follicles which, from their size, number and dark color are evidently diseased, should be removed. Enlargement, congestion and softening from œdema, and patches of induration with irregular distention of the vessels and the evidence of small blood-clots as described above, are conditions indicating removal.

Cirrhosis, indicated by subnormal size, induration and rough surface, when found in a young subject, can be easily passed upon. But in a subject near or after the menopause, this appearance of the ovary does not decide with certainty whether there is cirrhosis or simply senile atrophic degeneration.

I have thus briefly described this part of the subject, introducing only such facts as I have obtained from observation, and which have appeared to be of possible use in guiding the surgeon. This brevity arises in part from my limited knowedge, but mostly from the hope of raising a discussion which will doubtless bring out much that we need to know. Much might be said about the influence of chronic ovaritis upon the functions of the sexual organs and the nutritive and nervous systems, but time will only permit me to say, that menstruation is often deranged, and in various ways. Dysmenorrhœa is often present, and in some the menses are retarded and scanty, while in others too frequent and profuse. When the latter condition exists, the ovaritis is more easily controlled than in patients who have a scanty flow.

The effect upon the nervous system is peculiar and marked. Depression and irritability are usually pronounced. The hystero-epilepsy which has attracted much attention from the neurologists, is really an epileptiform affection, due, in all cases that I have seen in my own practice, to ovarian disease. Ovaritis also ranks first among all diseases of the sexual organs in the causation of mental disorders.

The causation of chronic ovaritis demands a brief notice, owing to its intimate relation to the question of treatment. According to my observations, the cause which most frequently obtains is imperfect menstruation. When the uterus is undersized or flexed forwards or backwards, and the menstrual flow scanty and attended with pain, the ovaries are liable to take on chronic inflammation. This is far more liable to occur if the sexual function is perverted in this class of subjects. Specific causes, such as produce the eruptive fevers, are said to affect the ovaries; but I believe that acute ovaritis is more liable to occur under these circumstances. It is probably true, also, that gonorrhœa causes acute rather than chronic ovaritis.

The strumous diathesis (which I understand to be that condition of organization which invites tuberculosis), predisposes to chronic ovaritis, and inherited or acquired syphilis does likewise.

Much has been written about endometritis as a cause of ovaritis, upon the ground that the structure of the endometrium and ovaries have a common embryonic genesis, and the fact that the two diseases are often found together; but this is still an open question.

In regard to the diagnosis of chronic ovaritis, I refer all interested to the able paper on the subject by my esteemed friend, Howard A. Kelly, in the *Am. Jour. of Obst.* for February, 1891.

TREATMENT.

The advancement of abdominal and pelvic surgery in recent times has led to the removal of the ovaries as the most prompt and effectual treatment of chronic ovaritis. There are reasons for this upon theoretical grounds. The ovary is causing much suffering; there is a likelihood that it will be a long and tedious trouble, especially is this the case if general treatment has failed; the ovaries are not necessary to existence, and can be removed with safety; it is according to the rules of surgery to remove any organ, or other portion of the body that one can live without, in case a disease of the part tends to take life or cause unlimited suffering and invalidism. Hence, from this way of looking at the matter, the ovaries should be removed.

The facts are (facts that have been proven almost sufficiently), that chronic ovaritis does not end fatally, and is self-limited though often of long duration; the removal of the ovaries is not free from all danger, though all cases properly operated upon have recovered, and it does not in all cases give complete relief. In fact, many of the cases are not much improved, if any; even those who are nearing the menopause, and who bear the loss of the ovaries better than younger subjects, occasionally suffer much from those nervous disturbances which follow an abrupt menopause, and have to endure pelvic pain in the region of the stumps. The clinical history of cases in which the ovaries have been removed does not, in all cases, show great advantage over those in which the ovaries are left to complete the natural history of the disease. Younger subjects do not bear the loss of their ovaries agreeably. Some become fat, indolent, inefficient, and subject to headaches. Others are irritable, dyspeptic and despondent, while but few enjoy good general health and mental vigor. This statement is contrary to much of the published literature, but is closer to the actual facts. The cases cured are those operated on when near the menopause; those who are improved are generally those who suffered from complicating affections, such as dysmenorrhœa; while the unimproved are the younger subjects, in whom the disease was uncomplicated.

The objections to surgical treatment apply to the removal of both ovaries. In cases in which one ovary alone is affected, and especially where there is prolapsus of the affected ovary and retrodisplacement of the uterus, ovariotomy is perfectly satisfactory. The removal of the diseased ovary gives relief and the retro-displaced uterus can be restored, while the remaining ovary performs its functions, and the general health of the patient is preserved. I desire to be understood as advocating the removal of the ovary only when there are structural changes from inflammation and prolapsus at the same time. Prolapsus can be relieved by fixing the ovary to the upper border of the broad ligament, and the welfare of the patient can be thus conserved to a higher degree. When advocating conservative measures in regard to abdominal and pelvic surgery, it may be inferred that I am behind the age in experience; but I have had a large field for operative surgery, and have acted to the fullest extent justifiable, according to my judgment. In fact, I have in the past violated the rules I now advocate, but I have not been satisfied to have my patients simply survive the operations. I require that they be cured, and failures in this regard have led, I trust, to a rational conservatism.

I have no word of condemnation for those who have removed, and are still removing, ovaries for the relief of chronic ovaritis. Their work, while not always beneficial, has been of vast interest to science. Their doings help to perfect surgery. The rough, unsightly scaffoldings employed by builders are temporary necessities, which are all cleared away when the structure is perfected and completed. In like manner the heroic, daring experiments of the surgeon are valuable steppingstones, which lead to mature science and art.

The indications for general treatment are to lessen the blood-supply, and relieve pain by correcting the deranged innervation. This demands rest in the recumbent position in the early stages. At the same time general exercise should be enjoyed, either by massage or gymnastic exercise, in the reclining position. I specially desire to commend systematic calisthenics, in the recumbent position, as a most valuable aid in improving or maintaining the general health in many diseases of the pelvic organs which require rest as an important part of the treatment. The condition of the digestive organs should be carefully watched. The poor appetite, coated tongue and constipation; or the capricious appetite, flatulence and occasional diarrhœa, can be relieved by a number of small doses of mercury and a laxative. The saline laxatives are the best when they act without causing flatulence. The use of Saratoga waters often gives good results by improving digestion and keeping the portal circulation active. By keeping up a free elimination by the bowels and kidneys much benefit is obtained.

This applies in cases that are apparently debilitated. Many times I have taken cases away from tonics, stimulants and forced feeding, and given saline laxatives, with the effect of increasing the patient's strength. To relieve the pain and lessen the hyperæmia, the bromide of sodium and fluid extract of hydrastis canadensis, are by far the most potential agents that I have found; they are given in combination and in doses sufficient to produce the desired effect. Twenty to thirty grains of the bromide and ten to twenty minms of the hydrastis, three times a day, until the physiological effects of the bromide are noticed in a mild degree. If the hydrastis is given alone, in such doses, it sometimes causes pelvic pain of a dull character, but whem combined with the bromide it has no such effect. These agents are most efficacious in the beginning of the attack, and hence they should be discontinued as soon as the pain is relieved in a marked degree. Should the pain and tenderness return at the succeeding menstrual periods, the bromide and hydrastis should be resumed. In some cases, much larger doses of bromide are required, and in others it fails altogether to relieve pain. Then it is necessary to employ other agents especially during menstruation. Ten grains of salicylate of soda and five of antipyrine given between meals and in the night when the stomach is empty, answers for some; others, more especially those markedly debilitated, do better on full doses of aromatic spirits of ammonia, camphor and chloric ether, with small doses of cannabis indica. This combination is best suited to those who get relief from gin and whiskey, but it is to be preferred, as alcoholic stimulants ultimately do harm, though they may give temporary relief. Direct or local treatment should be adapted to the social state of the patient, and the presence or absence of complications such as endometritis. In the unmarried local treatment is often injurious. In fact, in such cases, it is better to avoid any examination of the pelvic organs, if the history is sufficiently clear to enable one to make a diagnosis with reasonable certainty. Hot Sitz bath, counter-irritation and hot vaginal douches, the latter to be employed by a competent nurse, comprise about all that I employ in the way of direct treatment. The vaginal douche should not be continued unless it is decidedly sedative in its effects. In married women (and those who are so in all but the name) local treatment is more valuable. The treatment of any disease or displacement of the uterus that co-exists should be managed in the usual way, and such local applications should be used as may aid in relieving the tender and hyperæmic ovaries. I employ a small tampon or pledget of cotton or wool saturated with equal parts of the tincture of belladonna and glycerine, applied behind the cervix uteri, and permitted to remain forty-eight hours, and after its removal a hot douche. These are continued during the first days of treatment. The effect is to support or steady the ovaries, while the sedative effect of the belladonna and the depleting effect of the glycerine are obtained. This I have followed with applications of tincture of iodine after the manner of Dr. Emmet. Recently I have used, with good effect, the sulphur ihthyolate of ammonium, five parts in ninety-five of glycerine, applied in the same way as the belladonna and glycerine.

The general and local treatment, thus briefly outlined, gives relief from the more pronounced symptoms. The pain becomes less and the tenderness also. The general health improves and the pelvic congestion subsides. This is apparent in the color of the mucous membrane, the improved menstrual functions and diminished leucorrhœa. Then the local treatment may be employed at longer intervals or suspended altogether. The constitutional treatment should now be modified. Tonics and laxatives may still be required, but alteratives are also indicated. Iodide and mercury are the chief agents. They act upon the ovaries, as they do upon all glandular organs, and modify or arrest the morbid histological changes which take place slowly. Small doses of bicloride of mercury, with chloride of iron, when iron is indicated, followed by syrup of the iodide of iron in doses as large as can be borne. These can only be used when the bromides are given up. When giving these alteratives the patient often misses the bromides used to give sleep. Sulphonal, at such times, is of great value. In fact, it is the most potent sedative that is at the same time free from ultimate or after-effects that are unfavorable, that we have in gynæcological practice. When a sedative is required while iodine of mercury is being used, I find ten grains of salicylate of sodium and five grains of antipyrine, given three times a day, an hour before meals, gives much relief, especially in those who suffer from nervous dyspepsia and flatulence.

One important element in the treatment is patience and careful watching. Improvement comes and the patient or the physician gives up treatment, and there is danger of relapse. The poor in hospitals often suffer for want of time for prolonged treatment, and this often tempts the surgeon to seek more prompt relief by removal of the ovaries. This does not apply with the same force to those who have time and means to secure the needed care.—Alex. J. C. Skene, M.D., in *Boston Med. and Surg. Jour.*

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HYSTERIA.

I well appreciate the onerous, and, in some respects, questionable, task which I have set myself in attempting to discuss the subject of hysteria. I approach the task with some degree of temerity, too, for there can be but few more difficult than that which requires the orderly arrangement and intelligent analysis of such a conglomerate as that presented by this disorder.

In the first place, then, can the task be accomplished? Is there a disease, having a sufficient identity to justify its separation and independent study, which can properly be called hysteria? The term hysteria is so inappropiate to most cases which have been so designated, that there has been a constant rebellion againt its use, and numerous attempts have been made to furnish a more rational and scientific substitute. The influence of precedent and usage is so strong, however, that we constantly revert to the old term, and possibly it is as well to adhere to this, known to be inappropriate and unscientific, until there has been determined a sufficient basis for an accurate scientific nomenclature, rather than to accept now, with our imperfect knowledge, another term which pretends to indicate a solution of the problem of its pathology, and yet may be as much at fault as the old.

While we may willingly concede that this term hysteria is a misnomer, and as applied to this group of symptoms, misleading, we will, I think, all concede that it has served a useful purpose in enabling a distinction to be made between this group and all others which may be simulated by it.

We do then encounter something in nosology, which we can conveniently and profitably designate as hysteria. The conditions, however, of its use, and the nature of its symptom-group, are such that it is very difficult to keep in mind a clear conception of the meaning of the term. This arises from several causes: first, there is no known pathological anatomy; second, the symptoms are in chief part simulative of other disorders with well-defined pathological bases; third, these simulations are so multiform and varied, in both seat and characteristics, that it is quite difficult to recognize anything common to them all; while lastly, the long continued and almost universal custom of practically assuming, because of its simulative characteristics, that when its existence can be determined it means that there is no disease whatever, so disposes the mind of the observer that he ceases further to investigate its nature.

My plea to-day shall be for two concessions: first, that when hysteria is diagnosed it does not mean that there is no disease present; and second, that it is the duty of every physician to study and record its manifestations to the end that our knowledge regarding its nature may be made more complete, and our treatment of its manifestations more successful. It is not alone in its want of a pathological anatomy; chorea, paralysis agitans, and other fully accepted and well-determined diseases have no known pathological basis. The difference between this disorder and those is chiefly in the want of cohesion in the second elements of its symptom-group, and we cannot obtain any clear idea of the thread of similarity which runs throughout these until we have clearly-defined ideas of its pathology. This is a prime necessity in the study of the disorder, and must be satisfactorily settled before we can make any permanent progress.

A slight review of its manifestations may throw some light on this. First, then, these manifestations are fugacious in character. They flit from one tissue to another and from one locality to another with a reckless disregard of all pathological laws. Second, in its manifestations it assumes the garb of nearly every disease with which the animal economy can be afflicted. Where its local evidence appear they resemble, in most particulars, some other disease having the same habitat and the same local symptoms. Like the cuckoo it builds no nest of its own, but steals into that prepared by every other pathological process, aping the real, and itself evading the knife of the surgeon or the diagnostic investigations of the physician. It puts on the garb of the most serious and fatal maladies as well as of the less dangerous. Paralyses, contractures, convulsions, sensory disorders, ocular and aural diseases, degeneration of the cord, loss of voice, ovarian and uterine disease, diseases of the joints and in fact disease of every organ and of every tissue may be simulated by this protean influence. This diverse character and this proclivity to manifest itself in every conceivable locality, will give us a clue to the seat of its pathology.

I assume that no one will be willing, in this age, to admit that disordered functional activity can exist without some representation in the physicial arrangement of the tissue substratum. That we cannot detect it by our present methods of investigation is true many times, but this is no sufficient reason for assuming that function can be so far dissociated from organ that one can be deranged while the other is normal.

Now the structure of every tissue and every organ in the body comprises essentially two parts, the one the elements which go to make up its individual identity, and the other that structure which connects it in function with the other portions of the structure of which it is one of the integral parts. In this disease the absence of visible structural change in the first, and the flitting character of the functional disorder, render improbable any change in the structural arrangement of this part.

In other words the machine itself is probably intact. The mechanism by which its activity is developed, and which comprises the second element in its structural arrangement, if it can be so defined, is that which is at fault. This, it need not be mentioned, is the nervous tissue. This alone, is omnipresent in the organism, and this alone presides over physiological activity of every organ.

This nervous system is a most complex structure. It may be divided, however, for our present purpose, into three portions of tissue subdivisions: terminal organs or tissue developments, conducting lines, and central cellular elements. In what part of these is located the pathological change which gives rise to hysterical manifestations?

The second subdivision may be excluded, first, because there is found no structural change, where its tissue arrangement is comparatively simple, and secondly, because all tests demonstrate that there is in reality no disturbance of its function, these being those of conduction. This leaves the central cell and the terminal structure, in one of which we must look for whatever pathological change pertains to the diseases. That the terminal organ is diseased, and its structure permanently changed, is not probable, because of the transient character of the disorder of its function. To-day, this is deranged, to-morrow, it is normal in every particular, though the disease may still be present, as shown in other parts. Experience, too, demonstrates that the only function of these terminal organs is to receive certain forms of impressions, and this funtion is never deranged without an accompanying change in structure which is visible either macroscopically or microscopically. To this last assertion there may be exceptions taken by some, but I believe a careful reflection will establish its truth. In this particular instance it is undoubtedly true that no evidence, either of pathology or disordered function, indicates any form of molecular change even, in the terminal organ of the part where the disease shows itself. This leaves only the central cell which may be the seat of the pathology of hysteria, and a careful review of the entire symptomatology will, we feel assured, justify this analysis by exclusion. There is no visible pathological change here, more than in the other portions considered. We must therefore, look to other proofs on the assumption that pathological changes may exist which are not discoverable by any known method of investigation, and show themselves only in functional derangement.

First, then, the function of this central cell is both to receive impressions and to transform these into other forms of activity. Its function is first to receive, and second, to react under the reception. The symptoms of hysteria relate to the second part of this functional activity. The entire group of symptoms in hysteria may be reasonably referred to either an increase or a diminution in the tendency of this central cell to react under an impresssion of given intensity.

Second, this central cell, besides these functions, also should possess the power to control within certain limits this reaction, both as to the degree of its intensity and the direction which it will take. This is the power of inhibition, and it is this function, *par excellence*, which is disordered in hysteria. Reactions are immediate and uncontrolled. Reactions to impressions may occur, giving rise to simulation of disease in some organ or tissue of the body when there is no local pathological change of any character. Again, a local change of given kind and extent may be productive of a reaction in these central cells, altogether abnormal in character or out of proportion to the local cause. Thus inflammation of a joint may result in hysterical contracture and impaired motion. Epilepsy may be accompanied by hysterical manifestations in almost every imaginable degree. There is scarcely a pathological process in any tissue which may not be accompanied by hysterical manifestations of greater or less extent. This is an important fact, and one which should be kept constantly in mind. Do not permit yourselves to so view hysterical manifestations that their presence will cause you to drop all further investigation of the case. A careful differentiation should be made in each case between those symptoms which are the result of local changes in the tissues, and those which depend on the pathological condition of the central nervous cell. Bear in mind that they may co-exist, and the presence of one does not therefore exclude the other. I have known the gravest mistakes to be made, and most serious results to follow a failure to keep this fact in mind.

It being determined that the pathology of hysteria consists essentially in a molecular modification in the central cellular elements of the nervous system, how much further differentiation can be made. The cellular elements of the central nervous system are found in several distinct portions of that system. They exist in the gray matter of the spinal cord, in the nuclei of the cranial nerves, in the collections of gray matter at the base of the brain, in the cortex of the cerebellum and in that of the cerebrum.

To determine this point it is necessary to consider again the symptomatology. In all the manifestations of hysteria of whatever form or habitat, there is a distinct psychic element, which of course discloses functional disorder of the cerebral cortex. This is the one universal and essential element in hysteria. It is always present, and is that which gives the disease its pecularities and defines its individuality. The cellular elements of the cerebral cortex then are always involved and display disordered functions. It is questionable whether the cells in the lower collections of gray matter are modified in any particular. The normal state of the reflexes, in most cases, would contra-indicate any change in the cells of the spinal cord. Those of the collections of gray matter at the base of the brain may be changed in some of their functional capacities, but we have no certain method of gauging this change. Their physiological functions have not been well determined, and it is not possible, therefore, to determine the part which they play in pathology.

Reasoning from the character of the symptoms, and by methods of exclusion, we determine that the pathology of hysteria consists in a disordered functional activity of the cellular elements of the cerebral cortex, dependent upon molecular changes in their structure, which have thus far eluded all forms of investigation, but which we assume from analogy to exist; that this functional change is shown in a modification or perversion of their normal reaction under stimulus from without themselves, and in a loss of their normal capacity to control and direct within certain limits, the direction and intensity of this reaction.

In addition to these conditions, hysteria requires for its development cerebral cortical cells of a certain type. The disease can be developed only in tissues of certain pecularities of structure, and like all other structural characteristics these are very prone to be transmitted from generation to generation. Strictly speaking, these inherited organic peculiarities are not elements in the pathology, but they are usually so marked and dominant in this affection that they must be considered defects, and consequently pathological. Such influences, then, as civilization and race are powerful factors in its development. Sex, also, exerts an influence. It is much more frequent among women than men, and among boys then men. The cause for this is probably in the peculiarities of the structure of the central nervous tissues of women and boys, rather than in the presence or condition of any sexual organs. We must admit, however, that these peculiarities are closely connected in some obscure manner with the states of the reproductive functions.

As to age Briquet and Landozy give the percentages of hysterical cases as follows: 8 per cent. under ten years, 50 per cent. between ten and twenty, 28 per cent. between twenty and thirty, 10 per cent. between thirty and forty, 3 per cent. between forty and fifty, and 1 per cent. between fifty and sixty years of age.

Among exciting causes, moral causes are very prominent. Injudicious training, indulgence and license, fright, love affairs, domestic difficulties and financial reverses may be named as the most frequent.

Among women their co-exists in about one half the cases some form of disorder of the sexual organs: ovarian tenderness is very frequent. Among boys and men, masturbation, sexual excesses or extreme continence are not unfrequent causes.

The diseases which it may accompany and complicate are so numerous and diverse, and it is so important to recognize the fact that because of its presence it does not mean that other forms of organic disease may not co-exist, that I feel like urging a most careful study of this point. Such diseases as typhoid fever, tuberculosis, rheumatism, the secondary stage of syphilis, and local inflammations of almost every form, may be disguised by hysterical symptoms. Arthritis may cause a hysterical joint, laryngitis may cause hysterical aphonia, bronchitis may cause hysterical dyspnœa, and blows or falls may develop hysterical pains, anæsthesia and contracture. Cerebral tumor, infantile paralysis as the child approaches puberty, epilepsy, diphtheritic paralysis, and hemiplegia of embolic origin (Growers) may all be accompanied by hysterical manifestations which more or less obscure them and cast doubt on their true character.

Upon cortical brain cells with such a susceptibility, all local pathological conditions act as irritants and produce symptoms directed to the locality of the actual local disease, which are altogether out of proportion to this disease, or sometimes even antagonistic and misleading. Here, just as in cases where there is no local irritant, the central perceptive elements are at fault, misinterpreting and misusing the stimuli which they receive.

Remember in every case of hysteria, whatever be the condition of the locality giving rise to the special symptoms, that there is a pathological condition of the central cortical cells, and that to these you must address your attention if you hope for success in the treatment. You cannot afford to scout the idea of disease simply because the peripheral lesion does not correspond to the symptoms existing. Disease just as important and far more troublesome is present and will require the skill of the most expert for its mastery.

The treatment cannot be prescribed on any hard or fast lines. As has already been stated, the principal element in the development of the disorder is the structural peculiarities or defects in the cortical cells, and this necessarily influences the treatment. It must be prophylatic and hygenic rather than directly curative. Two objects must be kept in view—the first to remove or diminish the abnormal susceptibility of the central cells by proper environmental, educational and tonic regulations, and the second to remove all local irritants which tend to develop or intensify this susceptibility. Moral means are usually mentioned as those which are to be used for this purpose, but I strongly object to such use of this word and such designation of the treatment to be used. It is not that we should not use what may be called moral influences, but because we should not concede that we treat mind in any sense as separate and apart from physical structure. We must keep the particular organs in mind, the functions of which we desire to correct, and as far as possible, when this is known keep distinctly before us a clear conception of the pathology, the tendencies of the pathological changes and the most rational means of combating these. With our present knowledge of the influence of over-excitation of the cortical cells, especially when this is coupled with abnormal irritability of tissue, and the series of pathological changes, which result from this overstimulation, we need have no difficulty in outlining suitable remedial measures. These changes are intimately connected with nutrition, and show themselves in pervisions of the circulatory and lymph conducting systems. In these the first evidences of pathological changes are seen as hysterical conditions pass, as they often and readily do, into states of more pronounced mental disturbance.

The limits of this paper will not admit of further entrance into this interesting subject, but I can but cordially commend a study of the minute anatomy of the cerebral cortex, with its physiology, and pathology, as offering most satisfactory results in the elucidation of this "*bête noir*" of medical practice. — A. B. Richardson, M. D., in *Cincinnati Lancet-Clinic.*

SOME PRACTICAL SUGGESTIONS FOR DEEP URETHRAL MEDICATION IN THE TREATMENT OF POSTERIOR URETHRAL CATARRH.

Mr. President and Fellows of the Academy: When I was asked to add my voice to the entertainment, which the Section I help to represent is expected to afford you to-night, I cast about me for a subject which, while as free from technicality as possible, might yet be far-reaching enough to interest the greater number, and at the same time probably provoke from the fellow-members of my Section a discussion profitable for all.

I have been unable to select one which seemed to me more appropriate than the one I have chosen. For posterior urethritis has become of late years a malady very well recognized by those who deal closely and often with genito-urinary cases, and its management is much simpler than what it was a few years ago; yet there exists in the profession at large, seemingly, a lamentable ignorance about it, which leads to much misconception and a considerable amount of mismanagement of cases, the diagnosis of which is very easy and the treatment of which may be successfully carried out by any one in many instances without calling for expert skill in the use of instruments. I have certain ideas on these subjects, ideas which have brought me to the satisfactory conduct of some very stubborn cases, and if a display of these in a general assembly like the present can lead the mind of anyone, until now unaccustomed to make distinctions, to a little more thoughtfulness and the exercise of something like logic in the diagnosis of gleet, and in that way to a more general application of reasonable therapeutics, I shall feel repaid for whatever effort this paper may cost me.

A gleet, as we all know, is not a disease. It is simply a symptom of some morbid condition, the nature of which it should be the function of the physician to determine; and it is as irrational to prescribe for a gleet, in any hope of curing the malady which occasions it, as it is to prescribe for cough with the same end in view without first by physical examination endeavoring to ascertain the source from which the symptom derives; yet my experience leads me to believe that in the profession at large the opposite course obtains, and that a gleet is treated in a routine way by the vast majority of practictioners, either by injections and internal medicine, or by sounds, or internal urethrotomy, or all, according to the imagination of the prescriber which leads him to generalize as to the causes of gleet and the methods of curing it.

This generalization is based upon the very undeniable efficacy of injections in most gleety conditions, and upon the wide-spread and more proper belief that one of the most constant symptoms of urethral stricture is gleet.

Such a generalization would be not unprofitable in a therapeutic sense if anyone were in a position to say exactly what stricture is; but the modern doctrine of stricture of large calibre has rendered this well-nigh an impossibility, for every natural undulation of the canal may be so classed by the physican who is properly impregnated with the large calibred stricture idea, and he is sure to find what he looks for in every case of gleet.

And so it turns out in many and very many an instance. When a patient with a gleet seeks advice, his physician has no thought of, perhaps little knowledge of, the possibilities and the prevalence of posterior urethritis; he neglects to make the very simple tests by which posterior urethritis may be demonstrated, and he first injects his patient and dilates or cuts his urethra, on the stricture theory—often to the considerable detriment of his patient, who finds himself after the treatment with his gleet still persisting, and the added discomfort of a wide-mouthed dribbling urethra, which never clears itself entirely after the urinary act, or possibly a permanent deviation of the penis from the correct line during erection (as a result of over-cutting), or a relapsing epididymitis or permanently irritable bladder from the injudicious use of very large sounds.

I make this general criticism not as directed against any urethral therapeutic measure, or any school of thought in urethral pathology. I personally believe in, advocate, and practice the cutting of anterior (and some posterior) strictures, of large as well as small calibre, when, but only when, they can be demonstrated to be the cause of the gleet which is to be overcome. My criticism is directed against the indiscriminate employment of a method, most useful when appropriate, and against the frequent neglect of such a study of the case as would lead in many instances to a direct localization of the cause of the gleet in the posterior urethra, and thus save the patient unnecessary mutilation, and the general body of the profession many animadversions from the laity.

I speak of what I do know, and can state honestly that the vast majority of cases of chronic gleet which come to me, are referred to me for advice, have already been cut anteriorly in the urethra from one to eleven times, and that very few of them have ever been tested by their attendants, or any effort made to ascertain whether they had posterior urethritis or not.

Such a state of affairs is not professionally creditable, and although neither I nor anyone (in my opinion and belief) can tell you how to cure every case of posterior urethritis, still one may easily learn how to cure many, and diognosticate all cases, and at least may know what he is treating and how to direct his fire against it, rather than to take a random shot into the bushes in the hope of bringing down some game, because, forsooth, some feathers are seen on the boughs.

Gleet is really an insignificant matter (unless still virulent, a point I do not care to touch upon in this paper), and if a like amount of mucous or muco-pus escaped daily from a man's nose, or mouth, or anus, or even his ears or eyes it would generally discomfort him not at all, or certainly much less than it does when he sees it exuding or milks it out of his urethral canal. Gleet must be classed with the little miseries of life, like shirt-buttons, and corns, a mother-in-law, a wrinkled stocking, a cross in hopeless love; yet philosophers have discovered it is the sum of these little miseries that make up the real woes of life, and there are few of us who have not seen a very sensible man driven nearly to the verge of desperation and despair by the very insignificant torture of a protracted urethral discharge; therefore, it is worthy of consideration, and any means tending to modify it is deserving of respectful contemplation.

The morbid conditions capable of producing a gleet are very many, so many that I shall not weary you by enumerating them here, since it is my intention to deal only with that variety dependent upon posterior urethral catarrh. I need only to say that when a gleet is due to anterior urethral catarrh, caused by stricture, granulations, or what not, the source of the pus may be demonstrated without the endoscope by gentle, thorough, hot irrigation of the anterior urethra by means of a soft catherer passed into the sinus of the bulb, and the immediate use of the simple metallic bulbous bougie, provided the meatus be reasonably large; for if the pus comes from granular or strictured portions of the pendulous urethra, the irrigation will only wash away what lies loose in the canal, and the bulb will subsequently bring forth upon its shoulder soft muco-purulent clots generally tinged with blood, which have been scraped off the excoriated areas from around which the inflamed mucous membrane secretes whatever free pus exists. There may be tight areas which the bulb will detect, but if there be not a granulating surface upon the tight area or behind it which the bloody muco-purulent clots on the shoulder of the bulb will demonstrate, or their absence disprove, then the cutting of such tight areas will not, in my opinion, favorably modify a given gleet in most instances. Yet, even allowing that there be some tightish areas, and even granting that they be moderately granular, still, if there be posterior urethritis the cutting of the tight areas, although it may greatly moderate, will not cure the gleet, and the patient should be so informed before any cutting operation is undertaken; or he is quite sure to be disappointed, and often to misjudge the physician who has been zealously working for his relief.

Therefore, again, it is desirable to recognize the existence of posterior urethritis, even when it is associated—as is often the case—with coincident anterior urethral catarrh; and the manner of doing this is so simple that it is surely worthy of being put on trial. Indeed, this diagnostic method is so well and so generally known that I almost hesitate to present it before a body of gentlemen so well equipped in general knowledge as the members of this Academy are; yet its constant neglect in good hands emboldens me and fortifies me in reiterating it with emphasis before you.

When there is posterior urethritis, from whatever cause, the quantity of pus lying in the urethra behind the bulbo-membranous junction is disproportionately great when compared with the amount of gleety discharge that appears at the meatus. This may be easily demonstrated.

When pus forms in front of the triangular ligament, it readily and promptly, for the most part, favored by gravity and the fact that the urethral walls lie in contact with each other, reaches the meatus. When it forms behind the bulbo-membranous junction, it more readily takes the opposite course, flowing backward into the prostatic sinus and into the bladder.

When, therefore, a case of gleet is examined, if the urethra be milked by firm pressure with the finger, from the perineum forward, until all the pus that will come be squeezed out and then the patient be instructed to urinate in two parts, into separate glasses, if he have even moderate posterior urethritis the quantity of pus mixed with the first urinary gush, representing the washing out of the deep urethra, will be disproportionately great when compared with what has flowed out spontaneously from the meatus or been milked out by the physician before the urinary act, as shown by gross inspection of the specimen. And if the grade of posterior urethritis be intense not only will the first urinary gush be purulent, but also the entire second urinary flow will be turbid with pus. In case of doubt the anterior urethra may be irrigated before the urinary test in two flows is applied.

The one obvious source of error here is a focus of suppuration in the substance of the prostate, in a seminal vesicle, in the bladder, or in the kidney.

The differentiation of these sources of purulent flow opens up a field rather too wide to be critically considered in a paper of the limited length my time affords. Suffice it to say that prostatic and seminal vesicular suppuration may usually be demonstrated by a milking of the prostate and seminal vesicles by a finger in the rectum, between the first and second urinary flows, a portion of urine being retained in the bladder to be ejected in a third urinary flow and the specimens examined microscopically after settling.

Bladder and kidney suppurations, although they may occur in company with both anterior and posterior urethritis, and will of course render all the urinary specimens turbid with pus, are beyond the scope of this paper and need not be considered.

The commonest kind of posterior urethral catarrh, ordinarily following a protracted gonorrhœa, is the one upon which I prefer to concentrate my and your attention.

Its clinical picture is this: A patient has gonorrhœa, following a more or less protracted course, perhaps complicated toward the end with swelled testicle or a more or less pronounced attack of gonorrhœal cystitis or vesical irritability, and then subsiding into a condition of mild gleet. Such a patient procures some, as he conceives, suitable injection. and as long as he continues to use it once or twice a day his urethra remains apparently dry, and he considers himself well. Within a day or two, however, after leaving off his favorite injection the discharge reappears and goes on to reach a certain grade of intensity, possibly without other symptoms, or perhaps accompanied by itching or discomforting sensations in the anterior urethra near the meatus, or referred to the perineum, and sometimes accompanied by a little urinary urgency and precipitancy. Such a man, even while keeping down his show of gleet by means of injection, will notice that if he drinks wine or spirits, or if he indulges in sexual intercourse, especially to excess, even or if he has a nocturnal emission, that his show of gleet will certainly become promptly aggravated. These are the cases that get a new gonorrhœa every few months, and those who claim to have acquired a new discharge from perfectly healthy women—and their number in the community is considerable.

They are cases of posterior urethritis often pure and simple. They fly from one nostrum to another, and from one physician to another. Sooner or later all of them have the anterior urethra widely cut for alleged stricture of large calibre, and some of them by this means receive temporary, permanent, benefit—when the membranous others urethra is the seat of soft stricture which keeps up the posterior urethritis in their particular cases, and when the deep urethra will tolerate the passage of sounds without resenting the traumatic violence thereby inflicted.

But this factor of deep urethra tolerance to sounds does not by any means always exist, and the sequel to the cutting and the passage through the deep urethra of large dilating instruments is quite often an aggravation of the discharge and a lighting up either of mild cystitis, prostatitis or epididymitis,

This picture is surely a familiar one to many of you.

Take such a patient at his best, between his acuter attacks, when he thinks that he is keeping himself well, as he calls it, by the use of an injection, and when he has no visible show of gleet—and ask him to urinate in a glass. Floating about in the urine will be noticed cottony chunks and irregular masses of fleecy muco-pus (not simple compact linear shreds), and more or less free pus. This patient is playing the ostrich role, and ignorantly imagining that because he sees nothing there is nothing to see, when all the while the drops of pus are oozing backward in his urethera and being washed out by each urinary act —drops which, if they did come forward and show at his meatus, would convince him that his injection was a snare, and only a mask to conceal the presence of the enemy.

If one of these little fluffy cottony chunks that float about in the urine be caught up in a pipette and examined microscopically, it will be found to be made up of more or less closely arranged rows of layers of pus-cells, strung out in straited films of colloidal prostatic mucus, entrapping the larger oval and rounded succlent cells from the neck of the bladder, some granular bodies, occasionally a crystal of oxalate of lime or uric acid, occasionally a stray spermatic element or a sympexion, sometimes a perfect hyaline prostatic cast—a cast to deceive even the elect, especially when, as is often the case in patients showing prostatics casts, particularly if there be also spermatozoa, the urine contains a faint trace of albumin.

A case like the typical one I have just described is often posterior urethritis pure and simple; there may be a small meatus and points of physiological anterior narrowing, but often the posterior urethra is alone at fault, and is responsible for the relapsing attacks of urethritis, and for the mild persistent gleet.

The sceptical among you may well ask at this point, if this be a case of pure posterior urethritis, why does any of the discharge at all show at the meatus, and why does an injection, which does not reach the alleged diseased area behind the triangular ligament, so positively moderate or even control the anterior discharge, at least in so far as causing it to cease to appear at the meatus is concerned. The explanation is easy.

Although the focus of disease is posterior to the bulbo-membranous junction, yet the congestion extends forward along the mucous membrane into the sinus of the bulbous urethra, and from this point a moderate oozing of pus occurs—as well as, to a very moderate extent, from the true focus of disease behind the bulbo-membranous junction. Now, the injection reaches and acts as an astringent upon the turgid vessels in the bulbous sinus, and the astringent exerts itself along the continuity of muco-membranous surface to a moderate extent into the membranous urethra and beyond the bulbo-membranous junction, and a repetition of the injection by a continuance of astringent action keeps down the discharge without reaching or curing the actual focus of disease itself; for if the anterior injection be too strong or be forcibly crowded back too far, cystitis or swelled testicle is, as is well known, a not uncommon result.

That a local application, acting simply upon the livid congested membrane in the sinus of the bulb, may control a gleet without curing it, can be often demonstrated by touching this livid membrane carefully with an astringent through an endoscopic tube; and that an application made on one side the bulbo-membranous junction extends its influence more or less to the other side may be also demonstrated by making a membranous urethral instillation of nitrate of silver, ever so carefully, and then inspecting the mucous membrane of the bulb, anterior to the triangular ligament, through an endoscopic tube. This spot, before of a more or less livid red, shows the pale white staining of the nitrate of silver solution. This fact was first observed and pointed out to me by Dr. James P. Tuttle; the only possible criticism upon its accuracy is that a minute portion of the silver solution has followed the injecting instrument on its withdrawal, in spite of all precautions taken.

But my subject drags. I came here to make some practical suggestions to cure posterior urethritis, and must hasten to that point. My suggestions are certain substances to be injected into the seat and focus of the disease with the deep urethral syringe. Though the method is not new, some of the substances are not ordinarily in use.

I do not at all claim that posterior urethritis must be treated locally to get well. On the contrary, most cases ultimately get well, and they do so without local treatment. Rest, the balsams and alkalies, the demulcent drinks, counter-irritation, time, change of air, sea trips, treating the anterior urethra, iron in chronic cases—all these things are potential, and most of them can be happily combined with the local posterior treatment, to the great advantage of the latter, and their co-operation is sometimes essential to the rapid and perfect effectiveness of the posterior treatment. I do claim, however, that most cases are suitable for local direct treatment, and that such cases under suitable local applications improve with a rapidity which is gratifying to the physician, and quite obvious to the patient; and I claim further that by recognizing the malady and treating it locally, many a urethra may be spared the use of the knife, and very much time saved.

Finally, I state candidly that a few cases are positively unsuited to local treatment, and get worse under it, no matter what substance is injected. To this class belong most tubercular cases and some simple inflammatory, and some ordinary gonorrhœal cases. When, however, the treatment disagrees, the symptoms (notably the discharge of pus) becomes so promptly and so obviously aggravated, that the futility of repeating the application becomes at once clear, while very little time is lost in making the test. I may add, finally, that there is practically no danger of producing cystitis or epididymitis, if the instrument be used carefully, and not inserted too far. The risk of occasioning these complications is vastly less, according to my experience and belief, than that incurred by treating the malady with anterior injections or with sounds—or indeed less than is the risk of these complications if it is left untreated locally, and internal medication be relied upon.

The instrument I employ is the syringe that bears my name. It is founded upon Ulzman's model, and is superior to the latter in being made in one piece, so that no injection soils the fingers, and in being more solid. Guyon's syringe has a bulb at its extremity and injects backward. It must, therefore, be introduced through the inflamed area to be effective, a manœuvre which inflicts unnecessary mechanical violence upon the tender parts. The same objection obtains in the case of all syringes having lateral holes or slits. My syringe and that of Ulzman have only one minute opening at the tip. This tip need be inserted only just within the hole in the triangular ligament, just beyond the bulbo membranous junction. So inserted, the membranous urethra grasps the tip of the instrument and the contents of the syringe—twenty minims or more—may be gently thrown in, and the entire injection will quietly flow backward along the membranous urethra, through the prostate, and into the bladder, with as little violence as possible, not one drop escaping at the meatus upon the withdrawal of the syringe. The little air sucked up into the syringe upon charging it may be disregarded, as it remains at the top of the instrument and in its tube, and need not be discharged into the urethra.

Formerly, in using strong injections I deemed it important to throw in only a very few drops at the diseased focus. Now I endeavor to produce my result by using much milder injections than formerly, and I throw in the entire contents of the syringe in every instance, except where nitrate of silver is used in a strength greater than ten grains to the ounce, when I use a few drops only. I increase the strength of injection of a given substance only gradually, after establishing a tolerance of the milder strength, and in this way I avoid irritation, formerly more common. When the source of the flow of pus is reasonably well forward in the membranous urethra, I generally make the injection before the patient urinates. When the inflammation extends farther backward and the supply of pus is considerable, I cause the patient to urinate just before making the injection, so that the injected fluid may flow into the bladder and become applied thoroughly to the mucous membrane at the internal prostatic urethral orifice, without being there diluted or neutralized by coming into contact with urine in the bladder at this point.

In suitable cases the free pus first disappears from the second urinary flow (the urine being voided in two parts), then it disappears entirely from the urine, some shreds still remaining. These are attacked by increasing the strength of the injected fluid, or, if there be some stricture in the membranous urethra, by the safe use of sounds after the catarrhal surface has been modified by the previous use of the injections, combined often with anterior astringent injections, which the patient administers himself.

I have employed in deep urethral injection most of the substances which have repute in controlling the flow of pus from mucous membranes, even Pond's Extract. Such substances as hydrastin, boro-glyceride, nearly all the lead and zinc salts, iodoform, creolin, pyoktanin, etc.; but at the present writing I have come to rely almost exclusively upon four substances—the sulphate of thallin, the glycerole of tannin, the sulphate of copper, and the nitrate of silver. I never now make a preparatory injection of cocaine, as I consider it unnecessary, often harmful.

The Sulphate of Thallin.—This I consider a very valuable drug. Its chemical name is tetrahydrotarachinanisol. It was introduced into anterior urethral medication as an ordinary injection, with words of high praise, by Goll, of Zurich, about five years ago, and since that time has constantly appeared as one of the ingredients of the antrophore, an instrument of torture, when employed in the deep urethra, which I only mention to protest against. I am not aware that anyone else has employed it in solution for deep urethral medication. I have so used it for about four years, and always with increasing frequency and confidence. It is bland and practically unirritating, and may be used up to a saturated solution, which is about twenty-four per cent. It is suitable for all the acuter forms of inflammation (except in cases of acute, recent gonorrhœal cystitis, in which the nitrate of silver has the preference), and it is the substance I almost invariably commence with in a solution in water of about three per cent., increasing at each injection up to six, nine, and twelve per cent. The last-named strength will usually do all that thallin can do in reducing the show of free pus in the first urinary rush. The intervals of making this mild injection are best spaced by two, three, or four days, according to the effect, which is sometimes wonderfully prompt and gratifying. The injection causes practically no discomfort, only a little warmth as a rule, and may be retained as long as the patient chooses.

The Sulphate of Copper.—This substance I use in a ten per cent. solution in pure glycerine. This I dilute with water for use, commencing at about one grain to the ounce and working up rather rapidly, if it agrees and has a good effect, to the full forty-eight grains in the ounce. It is markedly astringent in suitable cases, and generally in weak solutions, pains but little more than thallin; very strong solutions, however, of course feel hot and cause precipitate and moderately painful urination for perhaps several hours. The stronger the solution, the longer the interval before a second application is advisable. I do not very often go above a strength of ten grains to the ounce.

The Glycerole of Tannin.—This substance, pure, is too thick to be sucked up into the syringe easily. I use it reduced by adding water, seventy-five, fifty, or twenty-five parts, where a more astringent (but sometimes less irritative) influence is aimed at than that procured by the copper solution.

The Nitrate of Silver.—I employ this remedy as high as a ten per cent. solution, but very, very rarely—practically never in catarrhal cases—use anything like this strength. It is most useful in acute gonorrhœal cystitis, and as a final astringent when copper and tannin are not efficient. I dilute it with water at each time of application, commence usually at a strength of one grain to the ounce, and very rarely have to go beyond ten, making the applications every three to eight days —studying the effect and being guided by it. This is the harshest of the applications, causes the most pain, precipitancy, and urgency of urination (which often lasts several hours), but frequently renders incalculable service. Carefully used, it is free from the danger of producing complications.

By the careful and observant use of these four solutions, which anyone may easily master after a few trials, the greatest advantage may be obtained in suitable cases of posterior urethritis. Did I not have them at my command, I think I should give up the treatment of gleet. When they disagree the fact is immediately obvious, and their good effect equally clear when they suit a given case, while their employment is generally progressively satisfactory. The thallin makes a black solution when used in the same syringe with the nitrate of silver, which it takes some time to wash out. I therefore use two syringes, one for thallin and tannin, the other for copper and silver.—Dr. E. L. Kees, New York, in *Med. Rec.*

METHYL-VIOLET AND PERCHLORIDE OF MERCURY IN THE TREATMENT OF CANCER.

In the *Hospital Gazette* of last February I see that Professor Von Mosteg believes he has discovered a new cure for cancer in the hypodermic injection of methyl-violet.

As I have myself been experimenting in the same direction for the relief of malignant growths, the following notes of a case of cancer treated by me last year may be of interest to your readers.

On my return from Capetown on the 25th of August last, I received a telegram requesting my immediate attendance on a patient in a distant district.

Providing myself with methyl-violet and other germicides, I left the same evening by train, and arrived on the evening of the 27th, having crossed a mountain range 6,000 feet above sea-level, its peaks covered with snow, at the base of which he lived.

The patient—J. H. S., a Dutch farmer, aged 52, of healthy parents, but whose sister died from cancer of the stomach—had been hale and strong until two years before, when a small pustule appeared on his lower lip, where his pipe usually rested. It was destroyed twice with nitric acid, and then cut out in June, 1889. Four months afterwards, an enlarged gland appeared in the neck, which, in December, was as large as a walnut, increasing slowly till June, and then rapidly. When I saw him, the tumor extended from near the sternal end of the clavicle nearly to the point of the shoulder and to the lobe of the left ear, measuring 6¾ inches across, and 3¾ inches vertically; and round the neck, over the two colloid prominences, 17¾ inches. Pulse feeble, 88; temperature, 102°; tongue furred, swollen, indented on edges, sublingual glands swollen and painful, difficulty in swallowing, no appetite, unable to lie down, sleeping in a chair at short intervals as the pains would permit, restless and low spirited, complains of fixed pain at back of neck, and a burning sensation with partial deafness in left ear, head on one side from pain and pressure of the tumor. He had been visited by a medical gentleman from the town, who declined to give an opinion

A most unfavorable case certainly, and in a locality not favorable for remedial treatment, his residence being situated in a village of gardens and cornfields, on the alluvial banks of a mountain stream, flooded at times, and receiving the silt and drainage of the cultivated farms and homesteads above; with a deep impermeable clay subsoil.

After frankly representing the hopelessness of a cure in such an advanced stage of the disease, whilst firmly believing in the curability of cancer in the earlier stages, I could only hold out hopes of relieving the pains and other distressing symptoms without opiates, and of checking the progress of the disease for a time at least; and tried to cheer him up by instancing cases of lupus ("Die Wolf") which I had cured, a disease more dreaded by the Boers than the worst forms of cancer. He started excitedly, "Well, doctor, if you have cured '*the Wolf*,' you must try my case; the tumor has not yet burst, you may be mistaken. Do your best; I promise to do all you advise."

I injected at once ℥ss. of liq. hydr. perchlor., P.B., in three places round the hard base of the tumor, and gave a dose of sodæ sulphas to remove vitiated secretions. Next morning I was surprised at the change. He told me he had more sleep than he had had for weeks past, the pains were less severe, the colloid mass less tense and flatter, his pulse 80, and temperature normal. Hope and confidence had been restored by the sleep without drugs and he decided to accompany me to Grahamstown to the Albany Hospital, if I would remain two days for him to prepare for the journey. I saw a case of lupus, and one of goitre, and heard of two more, one of which had quite recovered after removal to the Orange Free State, that day. I drove into the town next day, and saw both of the medical men who had attended him, and both considered the case hopeless, and agreed with me that the only chance for relief was removal to a higher altitude; and indeed, on the journey the reduced barometric pressure, change of climate, scenery, and dry, keen air of the upland plains had already produced a marked change in his condition and spirits. No medicine was given.

On arrival at Grahamstown on the 2nd September the germicide treatment by lotions and subcutaneous injections of mercury perchloride was commenced, 10 ♏. at first every day, increasing gradually to 20 and 30 ., with marked improvement in all his symptoms. The pains left with the removal of pressure as absorption progressed. In a few days he could lie down, and slept sometimes all night. Injections of methyl-violet were now alternated with the perchloride.

Both my *confrères* on the hospital staff examined him, Dr. Greathead on the third, and my brother, Dr. Edwin Atherstone, a few days later, and though both deemed the case hopeless they advised him to continue the treatment. The appetite improved, and he was able to walk into the Botanic Gardens, and even to attend to business.

One of his sons and his wife were always with him. On the 7th I injected the colloid cysts with ʒss of perchloride daily for three days, and afterwards alternately with methyl-violet. It soon began to break up, and showed signs of necrosis, but did not open till the 25th, when three openings gave vent to a brown, grumous, offensive discharge. Sulphurous acid (one to six water) was then injected into the cyst, ʒij at a time, and afterwards one part to four, which quite removed all offensive smell, although the mass was entirely necrosed.

On the 25th, September internal medicines were for the first time commenced, to support his strength, his appetite beginning to fail. Quinine, phosporic acid, and methylene-violet were given internally with good results three times a day, with wine. He had been taking nutritious soups, eggs, etc., from the time the difficulty of swallowing ceased, which was a few days after his arrival.

On October 6th, I was confined to bed, completely prostrated by a severe attack of epicemic influenza, and Dr. Edwin Atherstone took charge of the patient for me. On the 16th, the patient's brothers came up and induced him to leave for home, and all attempts to dissuade him failed. He thanked me for my care and kindness, but went off the same evening by train to travel 600 miles, over a hundred of it in a spring wagon over the mountain range in winter. I heard that he died eleven days afterwards from exhaustion, free from pain and in the possession of all his senses. He died on the 28th of October.

In this case I trusted entirely to *local* treatment by hypodermic injections of germicides; it was too far advanced to trust to methyl-violet alone, as I intended to do if in the early stage, but the combination of the two by alternate injections, and afterwards by both combined, sufficed to reduce *pressure* and consequent pain; and there was *no* constitutional disturbance, no extension to glands, etc., *no anodyne* of any kind was given, either internally or by hypodermic injections. Forty-five injections were given during the fifty-two days of treatment. The sulphurous acid injections into the necrosed colloid mass prevented the poisoning of the system by the gangrenous discharge usual in such cases. I gave the methyl-violet in the quinine mixture more to affect the *mind*, the color being so exquisite, and *mind* and faith have a marvellous curative effect in disease. At any rate, I think this local treatment is worthy of a trial.—.W. Guybon Atherstone, M.D., F.R.C.S., England, in the *Hospital Gazette*.

* * *

At a conference of public bodies held in Edinburgh, it was stated that Sir Archibald Geikie has been nominated for the Presidency of the meeting of the British Association in Edinburgh in the year 1892.

AN IOWA QUACK.

Fearing lest a benefactor to his race should be compelled by his native modesty to blush unseen, and waste his sweetness on the desert air, we give space in our columns to a remarkable instance of his diagnostic skill. From Dr. J. G. Pace, of Nebraska, we received the following edifying document, which is printed *verbatim et literatim*:

—26TH—

PROCLAMATION

—OF—

DR. O. G. W. ADAMS TO THE PEOPLE OF THE WORLD.

COLFAX, IOWA, JANUARY, 1890.

TO MY PATRONS:

The past year having been to me an exceedingly prosperous and successful one, I desire to tender to you my sincere thanks, with the hearty wish that during the New Year we all may enjoy all of Earth's richest blessings. For the past year I have manufactured all my medicines in lozenge form, dispensing with alcoholic menstroum, and find that their medical virtues are in no wise impaired, thus preventing the formation of a habit for alcoholic stimulants and avoiding the pernicious results therefrom. All medicines are manufactured at my Labaratory under the supervision of a careful and practical chemist, who, after much study and many laborious experiments, perfected my medicine in lozenge form—making my remedies the only true temperance medicine EXTANT. In conclusion, allow me to say, give me and my medicine a fair trial, follow my directions and I will build up your debilitated constitutions, renew the vigor of life, and restore you to health again. I have treated during the past year 36,791 people, and established a business unequaled by any other medical man in the United States.

PSYCHOLOGIC SPECIALIST.

This science is fully understood by me. I will give a clairvoyant diagnosis either by lock of hair or presence of person, telling you how you are, better than you can yourself.

In the progress of civilization, old ideas, in almost every department of life, give place to those which are new, or essentially modified by them. Foremost among the interests which pertain to society, is health. With health, what can we not endure?—what can we not enjoy? Without it, trifles become burdens and the joys of life are turned into mourning.

VITAPATHIC SYSTEM, OR LIFE-PRINCIPAL.

The extraordinary cures which this system has affected, very naturally attract toward us the profound attention of the public. Medical men, clergymen, philanthropists, all see that we are performing a most valuable service. Under this system we give chyle and lymph of Roots, Herbs and Barks, acting in harmony with the great laws of Nature, gradually and kindly removing the hidden cause of disease. Nature's operations are almost invariably of the gentlest kind, all healthful ones certainly are. The gentle rain and the gentle dews teach us a lesson on this point. The wonderful power of medicine under the Vitapathic system cannot be too strongly urged.

To purify the blood is one of the cardinal principles of the Vitapathic system, which embraces a combination of various medical sciences and experiences—taking what is good from others and rejecting the rest. All medicine given in lozenge form.

CONSULTATION FREE.

☞ References from every State in the Union. All medicines made at our pharmacy. All letters must be accompanied by five 2-cent stamps.

O. G. W. ADAMS, M.D. Colfax, Iowa.

Our correspondent was so affected by this wonderful lucubration, that he immediately forwarded the doctor a lock of hair from his Gordon setter. In reply he received the following, which very fairly represents the diagnostic acumen of this worthy and reverend practitioner of the divine art of medicine:

OFFICE OF

O. G. W. ADAMS' SANITARIUM.

COLFAX, IOWA.

Thine at hand and contents noted. I find thee has nerve Blood and Seminal weakness and Rheumatism of the Blood Kidneys Spine Stomach Heart lungs and fluids of body all affected and Neuralgia of the Blood thee can be Cgred

It will cost thee 5 Dollars for two months medicine.

Registered Letters, Money Orders or Express Orders at my risk. All medicine sent by Express

Write the Town, County, State and nearest Express office plainly to avoid mistakes. In ordering medicine return this diagnosis. No medicine sent unless money accompanies the order.

References from every State in the Union. All medicine made at our pharmacy. All letters must be accompanied by five 2-cent stamps.

O. G. W. ADAMS, M.D.

The dog is being watched with extreme solicitude, but bears his numerous inflictions with equanimity. This man Adams is registered in Polk's Directory as an Eclectic; but his name is followed by a star, showing that no record of his his graduation was furnished.—*Times and Reg.*

SUMMER DISTURBANCES OF CHILDREN.

There are times when it is desirable to change the food of the babies the same as we need to change the bill of fare upon our own table. We must not forget that the palates of the little ones are to be consulted. That "variety which is the spice of diet" may be applied in a mild way even to the babies. The food that agrees with the baby to-day, or this week, or this month, may need changing next month. I present the following conclusions:

1. During the heated term keep the baby cool, but not too cool, just cool enough. Uniformity should be the ruling thought. Babies do not enjoy extremes of anything.

2. The proper regulation of the diet, the proper degree of sleep, the proper uniform temperature, pure air and the proper relief of thirst will enable every infant to weather the time of the hot sultry days of midsummer.

3. The severe intestinal diseases and the one which is the very acme of infantile danger—cholera infantum—may be passed serenely by if we impress upon the mothers the fact that the very first variation from the proper digestion should be corrected by the family physician and not by the "busy body" neighbors.

4. The mother should be impressed with the fact that the opinion of the physician is of so much importance in the matter of food as though medicine were to be administered, in fact it is of paramount importance, in that food is life to the child.

5. Experimentation at all times is risky, and particularly so when dealing with infants, and doubly so when the experiments are not conducted by an expert experimentalist. In the correction of disturbed direstion we should aid nature in getting rid of undigested and indigestible materials.

6. We should bear in mind the antiseptic thought.

7. We should see to it that less diet and a more digestible diet be brought into requisition.

8. During the entire period of infantile life we should protect the abdominal region against possible chilling by the wearing of a light woollen belly-bandage.

9. Relieve the thirst by good pure water instead of the breast or the nursing bottle.

10. Proper rest and tranquilization of the little one is desired; above all things let it be kept away from the heated body of the nurse or mother, who in addition to elevating the temperature of the child by contact with her own personality, will more than likely after each filling up with milk proceed in an affectionate way to trot it up and down, from side to side, and in a generally gymnastic way exercise her motherly muscles in giving the little one the soothing effect of thorough agitation, resulting in that which we find at every street corner, the "milk shake," more than likely the baby will reject the particular milk shake made in that particular way, but the result is not always so fortunate. It is far better for the little one to be placed upon a recliner the bulk of the time in a manner favorable to sleep and digestion.

11. Religious regard for cleanliness of all food utensils, refrigerators and nursing bottles should be insisted upon.

Not less than three or four of the simplest form of bottles should be always on hand.

The nursing nipples should be plain black rubber. The handy but filthy tubular affair should be condemned in toto.—*I. N. Love, M.D., in Dietetic Gazette.*

Two Chinese, alleged to be lepers, were admitted to the New York Charity Hospital last Monday.

THE IMPORTANCE OF EXAMINATION OF THE GENITAL TRACT DIRECTLY AFTER LABOR.

In a short paper some time since I endeavored to point out the advantages of flushing the uterus with hot water directly after labor, and my reasons for adopting such a proceeding.

I now wish to point out the importance of making a close exploration of the genital tract for any injury that may occur (more especially in primiparæ) during the process of parturition, by visual and tactile examination. The cervix uteri is frequently torn, the edges of the os lacerated, and the vaginal walls injured, *leaving the perineum intact*; so the conclusion is oftentimes come to that all is well, while considerable mischief may have been done unobserved.

By the hot water flushing we get rid of several sources of danger, and if a thorough examination is then made for vaginal and cervical injuries it will be comparatively an easy matter to draw together the torn surfaces in severe cases, and cauterize in minor ones with strong carbolic, thus leaving the parts concerned in a better condition for repair, and less liability to absorb. It will be obvious that at no other time subsequent to labor have we a better opportunity. No objections will be raised by the patient, and on the old proverb principle that "a stitch in time saves nine," may save a patient from septic absorption, with all its train of misery. The comfort to the practitioner's mind (when such lesions are found), by treating them *at once*, is no small recommendation to the adoption of this proceeding, and the no less pleasurable disappointment of finding that none exist (*which could not be determined without examination*), will also commend itself.

As a general rule the uterus is not washed out after labor, and no examination made except of the perineum.

The consequence is that in some cases when septic symptoms develop *the true cause is never known;* whether depending on a piece of membrane left to decompose *in utero* (which should have been removed at the time of labor), or a lacerated cervix never discovered, or some tear in vaginal surface, allowed for days, perhaps, subsequent to labor, to absorb the morbid products of conception, and so by permeating the patient's system bid defiance to the best directed efforts of the practitioner. I may also allude to the danger in cases where no examination has been made, and septic symptoms develop, of syringing with corrosive sublimate solution the abraded or torn surface which, in the first instance, took up septic water, being also capable (as proved by some cases lately published of severe burn) of absorbing the corrosive solution, and so contributing, if not actually occasioning, the patient's death.—Alexander Duke, F.R.C.S.I., in *Hosp. Gaz.*

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Alcohol and Longevity.—Dr. Ridge, in writing to the *Lancet* on this subject, deals with a matter of great public interest and importance, but in a way which leaves something to be desired. Underlying the whole of his argument from the published figures of the United Kingdom Temperance and General Provident Institution is the assumption that the two sections into which the members of that society are divided, *i.e.*, the Temperance Section and the General Section are substantially on the same footing in reference to such matters as bear upon longevity save in the one particular of the use or renunciation of alcohol. On this assumption the figures are both striking and significant, for they show that over a long period of years the mortality rate in the Temperance Section has been consistently and markedly lighter than in the General Section, and therefore, to use Dr. Ridge's words, "the use of alcoholic liquors produces degeneration of the tissues and shortens life." But is the assumption of parity between the two sections in all other material respects than the use of alcohol a sound one? We believe not. It has been frequently stated, and never to our knowledge denied, that those members of the society who, having entered in the Temperance Section, cease to practice total abstinence, are thereupon passed from the Temperance Section into the General Section. Thus the ranks of the latter are constantly receiving recruits from the former, and a moment's reflection will show that these recruits must be of an undesirable class. Not only are they brought in without medical examination, but even by a process of selection which obviously works against the office. In many cases failing health is the cause of recourse to alcohol; and a sensible proportion probably of these transferred risks are cases of persons in this plight. If so, it is manifest that the process must entirely destroy the comparative value of the resulting mortality figures. The mortality of the Temperance Section is relieved by the withdrawal of more or less moribund members, and the mortality of the General Section is aggravated by the accession of the same individuals. To what extent this effects the result it is obviously impossible to say; but as most of the Life Assurance offices which publish their mortality are able to show as the result of medical selection a sensible reduction in the number of actual claims as against expected claims on a general business, the General Section of the United Kingdom Society would seem to be below par, and we strongly suspect that the explanation is what we have suggested. But the point is one that stands greatly in need of elucidation, and if those who have command of the very large statistical data which must have accumulated in the United Kingdom office would make a full disclosure, they would certainly produce a result not of merely statistical interest, but also of great public value.

ABORTIVE TREATMENT OF PNEUMONIA.—The indications for treatment are exactly the same here that they are in an inflammation in any of the extremities. We must stop the engorgement and prevent the exudation; if that is impossible we must limit it to its lowest possible extent. We have, through the agency of some force the nature of which is not considered in this paper, a weakening or possibly a total suspension of vasomotor control over the calibre of the small vessels in the lungs, and the result is congestion, then inflammation. This force must be met and overcome. We can strike directly at the cause and abort acute lobar pneumonia with as much certainty as we do the rigors of ague. If we can see the cause while the crepitant râle can be detected, in other words, while the exudation is taking place, we *can* stop it right then and there by the administration of ergot.

Give me Squibb's fluid extract of ergot, an oiled silk jacket and a mustard plaster, and I will treat successfully and in most cases abort more pneumonias than can be saved by the entire balance of the materia medica. I do not offer this treatment as something new or novel. The action of ergot upon unstriped muscular fibre, has been well understood for years. It has been used to control hæmorrhages in all parts of the body, where bleeding was due to relaxation of the arterial tone, with the most gratifying success. It has been found invaluable in hæmorrhages from the bowels, in fact it is the most universal and potent interna hæmostatic known, the happiest results being produced in hæmoptysis by the hypodermic injection even wnen due to purpura hæmorrhagica. But, gratifying as these results have been, they cannot compare with the glorious results obtained by its timely and fearless administration in pneumonia. I mean by the term "fearless," a deliberate, conservative attempt to poison the patient with ergot. I have done this repeatedly, and long before the first symptom of ergotism appeared, the pneumonic inflammation has faded away like snow before the sun of June.—F. W. Epley, *in N. W. Lancet.*

INTUBATION *v.* TRACHEOTOMY.—Dr. Jerome Anderson, of California (*Occidental Medical Times*), says intubation of the larynx is a simple, easily performed operation. The head should be held erect, and strongly lifted, the epiglottis will then be elevated, and prevented from approximating too closely to the glottis. In this way one of the chief obstacles to rapid intubation will be overcome. The fear that the aperture may be too small to permit the introduction of the tube is a pure chimera; long before this stage is reached a child dies. The danger of pushing loose membrane into the trachea need not be taken into account, because, if the child has reached the exfoliative stage without fatal asphyxia, it will hardly require intubation afterwards; and, in any case, nothing but awkwardness or the use of unwarrantable force could detach or push membrane before the tube. The proper after-treatment depends entirely on the recognition of the dual nature of the disease. Diphtheria of the larynx usually invades this organ some days after its appearance in the fauces, and after the first systemic fever, due to its ptomaines affecting the nervous centres, has partially subsided. Membranous croup is due to reflexion outwardly upon the laryns of a profound impression upon the nervous centres by a common "cold." The treatmont of diphtheritic croup after intubation is simply that of diphtheria; the one absolute essential in the treatment of membranous croup in steam. As to the comparative merits of intubation and tracheotomy, Dr. Anderson, says there is absolutely nothing that the cutting operation does which will not be accomplished by intubation better and more surely. A table of 27 cases is given; 14 cases of croup, with 11 recoveries, and 13 of diphtheritic croup, with three recoveries. One case is recorded in which the intubation tube was swallowed, and remained in the intestinal tract fifteen days before being passed *per rectum.*—*Br. Med. Jour.*

DENTITION AS A FACTOR IN THE CAUSATION OF DISEASES IN CHILDREN.—Dr. A. Brothers publishes a paper on this subject in the *Archives of Pediatrics* for June, and makes the following observations:—Having kept carefully compiled records of about five hundred teething infants in private and dispensary practice, he believes that dentition is rarely, if ever, the direct cause of disease; moreover, precocious or retarded dentitation may occur in otherwise healthy children of an entire family, but tho period of protrusion of the first teeth occurs in healthy breast-fed children at six months and a half in the vast majority of the cases. Further, he concludes as follows:—The first dentition is usually complete from the thirteenth to the thirty-sixth month; dentition is distinctly retarded in the first as well as in the late teeth of children brought up on a mixed or artificial diet; congenital diseases, as syphilis, seem to have a retarding influence on dentition. Rickets has a very pronounced retarding influence on the whole course of dentition. Struma seems to hasten the eruption of the first teeth, but does not affect the later teeth. In cases of undeveloped brain there is marked retardation during the entire period of dentition. Chronic diseases have a retarding effect upon the first teeth, but do not seem to influence the later teeth. Children suffering from marasmus seem to be precocious with the first teeth, tardy with the later teeth; while infants in whom epilepsy develops seems to have their first teeth early.—*Med. Press.*

Mercury as a Specific in Typhoid Fever; Conclusions from the Study of Seven Hundred Cases.—From a clinical experience embracing nearly 700 cases of typhoid fever, Smakovsky (*L'Union Médicale*, April 10th, 1891) concludes that the simplest and most efficacious treatment consists in the administration of calomel in fractional doses, according to the method of Professor Zachariine, of Moscow. Three-fourths of a grain of calomel is given every hour for ten doses, if necessary, or till copious, soft, greenish stools have been secured, a gargle of chlorate of potash being meanwhile used to prevent stomatitis. In cases in which cardiac weakness already exists, an infusion of digitalis is used before the calomel. If instituted in the course of the first seven days of the fever, this treatment is said to abort the disease, even when grave in type. If this result is not obtained, the drug exercises the most favorable action in shortening the duration of the disease and preventing complications. A second course of calomel may be given a day's interval after the first, the abortive action being produced sometimes only after this second administration. During the interval, and subsequently, if the disease is not aborted, the author prescribes:

℞.—Subnitrate of bismuth, . .	gr. ijss.
Pure naphthalin, ...	$\frac{3}{10}$ gr.
Sulphate of quinine, . . .	gr. jss.

Sig.—One powder. Four of these daily.

The author is convinced that the mortality should be *nil* in all cases where the treatment is commenced before the tenth day of the disease, excepting with the very old, or where it occurs in the course of another grave malady.—*University Medical Magazine.*

Treatment of Intercostal Neuralgia.—Menard treats intercostal neuralgia by applying a blister over the painful spot; by painting the spot with iodine; or by the use of hot and cold douches. At the same time, if the pain is severe, he administers small doses of opium, or even hypodermatics of morphine. Sometimes atropine or chloroform may be needed, and frequently soothing liniments have to be applied. The causes of intercostal neuralgia are numerous, and the condition which provokes the pain must be discovered and removed. If it is due to anæmia, Menard advises a course of baths, accompanied by the use of one of the preparations of iron. On the other hand, if the neuralgia be due to rheumatism, the salicylates, analgesin, or diaphoretics, must be resorted to; and if the case is a chronic one, sulphur, alkaline, or thermal baths should be adopted. Venesection, however, in the majority of cases gives excellent results. In other instances, iodine ointment applied to the wall of the chest, protecting the clothing by means of an adhesive plaster, seems to do great good.—*Maryland Med. Jour.*

The Treatment of Whooping-Cough.—The following treatment is used very largely by certain of the leading specialists in diseases of children in Paris, in cases of whooping-cough. It is divided into three periods. The patient should remain in one room or in bed, and the physician employs belladonna and small doses of opium with aconite, as in the following prescription:—

Tincture of aconite	of each 1 drachm.
Tincture of belladonna . . .	
Camphorated tincture of opium	

Two to five drops once or twice a day, according to the age of the child, is the proper dose. If there is no febrile movement the amount of the aconite can be much decreased, and if constipation is present the opium should not be used. In the second period, or when vomiting comes on, ipecac may be given in small amounts to allay gastric irritation, and in the third period, when convalescence is established, cod-liver oil tonics and Fowler's solution will be found of service.—*Med. News.*

A Warning About the Forceps.—In a recent clinical lecture Dr. Goodell said to his class: "Let me warn you, as young men, to resist the temptation of keeping the forceps on too long, in your undue haste or excitement to deliver the woman. Make it your rule always to take them off when the head is well down and the perineum begins to bulge, unless the pains have stopped, or the woman is in puerperal convulsions, or she is in any condition demanding prompt delivery. By observing this precept you will at least avoid the accusation that 'the doctor tore her with his instruments;' for indeed it is too true that the physician, in his haste to deliver, does often tear his patient either by a too hasty delivery or by pulling parallel with the long axis of the woman's body, instead of following the curve of the Carus."—*Practice.*

To Detect Copper Coloring Matter in Tea.—Sometimes worthless and exhausted tea-leaves are restored to their natural color and made to look like a superior article of green tea by coloring with copper or drying on copper plates. The addition of a little aqua ammoniæ to an infusion of tea thus colored will at once produce a blue color, more or less intense, according to the amount of copper present. The presence of copper coloring matter in pickles, preserved vegetables, etc., may be similarly detected.—*Nat. Drug.*

The Treatment of Acute Articular Rheumatism by Hypodermic Injections of Carbolic Acid.—As long ago as the year 1875, Professor Senator read a paper before the Berlin Medical Society on the "Treatment of Acute Articular Rheumatism by Hypodermic Injections of a Strong Solution of Carbolic Acid in the neighborhood of the Affected Joints." He pointed out that marked alleviation of the local, and some amelioration of the general, symptoms quickly ensued, and that without any appreciable ill effects to the patient.

In the *Medical Press and Circular*, June 17, 1891, Mr. A. L. Gillespie states that he has tried this treatment in about twenty-four cases, and that in all instances the results were quite as satisfactory as the five cases reported in detail in which the hypodermic injection of from 2 to 5 minims of a ten per cent. solution of carbolic acid relieved the pain almost entirely within a few hours. In all these cases the salicylates had proved inefficacious.

Having regard to the speedy relief afforded in the first four cases, this procedure seems to merit some attention, for though it might appear somewhat heroic to inject into or close to acutely-inflamed joints a strong solution of carbolic acid, yet the relief afforded was so great and welcome that the patients often begged for a repetition of the injection when another joint became painful. The short time that elapses between the injection and the cessation of pain, only half a minute in one case, the rapid return of freedom of movement, and the ease and ability to sleep thereby afforded, warrant our using it in many cases. It is of special value in cases of gonorrhœal rheumatism, in which no good has arisen from the use of salicylates, but does not seem to act so well when many of the joints are affected.

Although the author has injected the solution directly into the distended synovial cavity of an inflamed joint without untoward results, it is safer and as efficacious to pass the point of the needle of the syringe through the skin obliquely, and, judging where the synovial membrane is, to inject the fluid as close outside the sac as possible. Injected into the sac itself a ten per cent. solution of carbolic acid precipitates the albumen present in the serous contents.

The rationle of the rapid disappearance of all the symptoms is, first, that it is due to the powerful local anæsthetic action of the acid; secondly, to some slight specific action against the rheumatic poison exerted by it. While with regard to the dose one might give, a grain of the pure acid in a child to 2 grains to 2½ grains in an adult would not be excessive.—*Thera. Gaz.*

Permanganate of Potassium in Diphtheria.—Dr. Netzetzky says that his twenty-two years' practice convinced him that the best treatment of faucial diphtheria consists in an energetic use ef permanganate of potassium. The drug should be administered in the shape of paintings and gargle. The following strong solution should be employed:

℞—Potassii permanganatis, . . . ʒ j.
Aquæ dist., ... ℥ j.—M.

Sig.—To paint the affected surface every 3 hours.

For gargling, which is to be repeated as often, a teaspoonful of the same solution should be mixed with a tumblerful of boiled water.

In those cases in which the child is unable to gargle, the following mixture should be given internally:

℞—Solut. hydrogen. superoxydat., 2 %, ℥ ij.
Glycerinæ, ... ʒ ij.
M. Sig.—A teaspoonful every 2 hours.

—*Med. Rec.*

Angina Pectoris.—R. Douglas Powell (*Practitioner*, April, 1891, No. 274) argues that angina pectoris is a disturbed innervation of the heart or vessels, associated with more or less intense cardiac distress and pain, and a general prostration of the forces, always producing anxiety and often amounting to a sense of impending death. Considerable stress is laid on habitual high arterial tension as a factor in causation. Angina is not necessarily associated with coronary or other disease of the heart or vessels, although it is true that in fatal cases disease or obstruction of the coronary arteries is the most frequent lesion found, after which in order of frequency come fatty degeneration, aortic dilatation, aortic regurgitation, and aneurism. The author classifies the varieties of the affection as follows:

1. In its purer forms we observe disturbed innervation of the systemic of pulmonary vessels, causing their spasmodic contraction and consequently a sudden extra demand on the propelling power of the heart, violent palpitations, or more or less cramp or paralysis ensuing according to the reserve power and integrity of that organ—angina pectoris vasomotoria.

2. In other cases we have essentially the same mechanism, but with extra demand made upon a *diseased* heart—angina pectoris gravior.

3. The trouble may commence at the heart through irritation or excitation of the cardiac nerves, or from sudden accession of anæmia of cardiac muscles from coronary disease—primary cardiac angina.

4. In certain conditions of blood (often gout), or under certain reflex excitations of the inhibitory nerves, always, however, with a degenerate feeble heart in the backgronnd. We may observe intermittence in its action prolonged to syncope—syncopal angina.

Treatment.—In group 1, nitrite of amyl, and still more nitro-glycerine, are of great value, and may require to be combined with nervine tonics or sedatives, iron, zinc, valerian, bromides, etc. In groups 2 and 3, carminative stimulants, or digitalis with nitro-glycerin, are recommended; and of all tonics arsenic, as a rule, is the best.—*Am. Jour. of Med. Sciences.*

An Epidemic of Puerperal Fever.—This unusual occurrence in a well-conducted clinic forms the subject of an interesting narration by Döderlein, of Leipzig (*Archiv. für Gynakologie,* Band xl. Heft 1), whose contributions on the bacteriology of sepsis are familiar. Three cases of lymphatic infection by the staphylococcus pyogenes aureus and streptococcus pyogenes occurred, the focus of infection being suppuration beneath an ill-fitting glass eye in a patient's orbit. In some manner the midwife who examined her infected her genital tract and that of two others, one of whom died. By control experiments upon animals it was observed that the union of the two microörganisms produced an especially virulent infection. From the standpoint of treatment the intra-uterine douche is of value as soon as high fever announces the infection; if delayed, the microörganisms are beyond the reach of the antiseptic and the douche is harmful. It is given by Döderlein by inserting a Cusco's speculum, washing out the vagina with sterile water and inserting a glass douche-tube into the uterus, through which sterile water is allowed to run until it is seen that the flow is uninterrupted. A two per cent. creolin solution is then used to thoroughly douche the uterus. For the treatment of puerperal peritonitis, he advises absolute rest, ice to the abdomen, antipyretics, and opium. He believes that internal examination for diagnosis should be as infrequent as possible.—*Ibid.*

Complete Prolapse of the Pregnant Uterus.—A case of complete prolapse of the pregnant uterus at six months is reported by Berne (*Lyon Medical,* Nos. 14 and 15, 1891). The patient was pregnant for the fourth time, and had suffered for several weeks from the presence of the prolapsed uterus between her thighs. Difficult micturition and leucorrhœa had resulted. Replacement was easily affected and maintained by a tampon; pregnancy continued to a successful termination. We recently had occasion to note the remarkable tolerance exhibited by the pregnant uterus in a case of total prolapse at the fourth month in a working woman, who sought treatment at an out-patient clinic. Reduction was easily effected and a fairly good position maintained by a tampon, the mass of which was carded jute covered by cotton, the whole smeared with a lanolin-iodoform paste.—*Ibid.*

Treatment of Urticaria by Iodide of Potassium.—Stern (*La Semaine Medical* 1890) has treated five cases successfully, four of them being more or less chronic and rebellious to all previous treatment. None of the patients were either syphilitic or asthmatic. In one case, of four months' duration, the itching disappeared on the second day of treatment, and the cure was completed after two and a half drachms of the remedy had been taken. In two cases (one acute, the other chronic) the itching was at first increased, but a successful result was obtained in each case after the administration of seventy-five grains of the drug.—*Ibid.*

Pyoctanin.—Dr. Willy Pohl (Berlin), says that pyoctanin: 1. Is positively non-poisonous. 2. Does not coagulate albumen. 3. Is very diffusible. 4. Has no smell. 5. Does not pain on application, but apparently stops pain. He further speaks of its use in surgery, especially in bruises of the skin, contusions, slight burns, wounds, fistulas, and suppuration of bone. In skin diseases, such as herpes, acne, lupus and erysipelas, it has an excellent curative effect. In diseases of the mucous membranes (nose, throat and ear), it also shows its therapeutic value. Diseases of the eye, as conjunctivitis, iritis, keratitis, choroiditis, etc., may also be effectually treated with pyoctanin. Dr. Schubart (Reinsoz) says that if 1-2 per cent. solutions are ineffective, 5·10 per cent. solutions may be used. Regarding the treatment of the mucous membrane, he cannot state in what per cent. solution to use it.—*Deutsche Med. Zeit.—Times and Reg.*

The Treatment of Amenorrhœa and Dysmenorrhœa by Apiol.—According to Dr. Delmis, apiol is the active principle of the seeds of parsley. It is an oily fluid of an amber color, heavier than water, having a special odor resembling that of the seed from which it is obtained; has a piquant acrid flavor; insoluble in water, soluble in alcohol and ether, and in chloroform. It was at first supposed to be succedaneum for quinine, but observation has not confirmed this. The experiments of Joret and Homelle have pronounced it to be a valuable emmenagogue. These observations have been confirmed by many other authorities, which are enumerated. In a physiological point of view apiol is absolutely innocuous. In doses of from fifty centigrammes to one gramme it produces slight cerebral excitement, such as is caused by coffee. In doses of from two to four grammes it produces drunkenness. With reference to its therapeutic action it has an effect on the uterus analogous to that of digitalis on the heart. To produce its full effect it should be given shortly before each period.—*Le Progrès Médical.*

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LANNELONGUE'S NEW TREATMENT FOR TUBERCULOSIS.

It has been wisely said that children learn by asking questions. Everyone knows how tiresome children become with their innumerable "why's" and "what fors," but such is the natural means by which they gain information. We, as children endeavoring to fathom the secrets of nature, and to frustrate her designs, when they are inimical to the well-being of her created beings, and especially of man, must proceed in a manner very similar to our children, by questioning our great mother Nature. And, like them, our questions are often wrongly and weakly put, and our comprehension of her answers, however truly and plainly given, is often childish and weak. The attempts of scientific men to find out from nature the manner of her procedure in destroying animals by the bacillus tuberculosis have been many, and we have at length arrived at a satisfactory conclusion regarding that first great problem. But, unfortunately, although the attempts to interfere with this destructive process, have been vastly numerous, they have so far been in vain, and tuberculosis and its allied diseases are as fell as ever they were.

So that while we are apt to grow weary in the everlasting strife, and have, perhaps, experienced that "hope deferred which maketh the heart sick," we must still welcome any new means of combating that dread enemy—tubercle. And the very latest, and one which at first blush promises well, is that of M. Lannelongue, Professor of the Faculty of Medicine in Paris.

In a recent communication by this gentleman, at the Académie of Medicine, on what he calls "a method of prompt transformation of tuberculous products in the joints and other parts of the human body," he brings forward his plan of operations. The idea was suggested to him by the reduction of a large congenital hypertrophy of the arm by sub-aponeurotic injections of a solution of zinc chloride, which speedily reduced the size of the arm, and changed in a few months, what was a mass of flabby moist tissue into a dense hard tissue. This sclerosis is not confined to the immediate points of injection, but radiated as from centres, and apparently closely imitates cicatrization. In conjunction with M. Achard, the action of the drug has been tested on animals, the tissues of which had been subjected to tuberculous changes, with the result of producing a sclerosis of the tissues which stopped the further eccentric ravages of the bacillus. The injections were made, not into the foci of the bacillary zone, nor in the granulations, but outside and around them, where the active spreading process is going on, the central portions being at the same time in a condition of degeneration and necrosis.

Thus he attacks with his agent, the peripheral, active portions, where the bacillus is spreading eccentrically. He thus causes these peripheral parts to take on sclerotic changes, which render them unfit to propagate, by continuity of substance, the morbid process. These changes are, broadly speaking, a fixing and killing of the anatomical elements of the tissues, an obliteration of the capillaries and small blood vessels of the zone, and a narrowing of the lumen of the arteries and veins by setting up an inflammation of their walls. There is also an enormous influx of new anatomical elements, or new embryonic cells into the changed tissues, not only at the point of injection, but for some distance around it. These not only infiltrate the tuberculous tissue, but as M. Lannelongue suggests, commence an active warfare upon the baccilli (see work on Leucocytes, CANADA LANCET, Vol. xxiii, p. 368) ending in their destruction. The morbid tissues acted upon by the zinc chloride are slowly absorbed and finally disappear, while the young tissues undergoes organization, forming a tissue dense and hard and containing but few blood vessels.

The Dr. uses a solution of from one in 40 to one in 10, and so far no abscess has formed so long as the injection was carried beneath the investing aponeurosis. They cause more or less pain, differing in different cases. In two or three days the granulation tissue becomes more resistant and tense, and later on nodules, which feel like cartilage, may be felt at the seat of injection. The sclerosed tissue gradually becomes softer and looser, and permits natural movement of joints, and even ensuring their proper shape.

Upon the general health the treatment has little effect. We cannot do better than to give in conclusion, Dr. Lannelongue's *modus operandi* and rules of procedure, taken from the *Hos. Gaz.*

Taking the knee as the type of the application of the method, each region of the synovial membrane should be considered separately. I plunge in the needle above the superior *cul-de-sac*, so as to reach the femur on a level with the reflexion in the fungating synovial membrane, and I deposit the fluid right on the femur, either inside or outside the peritoneum. In this way I make four or five punctures deeply in the half circle formed by the superior *cul-de-sac*. About double this number would be necessary in the case of an adult. The parts of the synovial membrane below the patella on either side of the ligamentum patellæ are likewise accessible, but it is desirable to proceed systematically, and to choose the spots with care.

The principal rules to observe in carrying out this method are (1) Avoid injections into the cavity of the articulation. (2) That injections should be made as far as possible at the points whence arrive the blood vessels; following up the granulations along the large ligaments, avoiding the vessels themselves wherever this can be done. (3) Avoid injections immediately beneath the skin. (4) Beginning with solutions of 1 in 40, the strength may be gradually increased to 1 in 10. In the lung I use 1 in 40, and in the epididymus 1 in 20. (5) In tuberculosis of the ribs, iliac bones, and glands, I use a 1 in 10 solution. (6) It is preferable to inject small quantities at a time, a couple of drops for example, multiplying the points of injection. (7) Before having recourse to the method, the limb should be placed in a good position and maintained there. (8) If, after a time, there are signs of recurrence, the treatment should be forthwith recommenced.

We shall endeavor to keep our readers posted as to further developments of this system. It has, so far, been apparently successful, Dr. Lannelongue having in the month treated 22 cases, 2 being of pulmonary phthisis. Of these, 6 are cured, 2 almost cured, 9 are doing well, the remainder are not reported upon.

TRACHOMA—ITS RECENT TREATMENT.

Among the various treatments of trachoma, or granular lids, as seen in the ophthalmic hospitals of New York city, the operation of "squeezing," and Sattlee's method, seem to give the greatest satisfaction.

The first named has proved very successful in recent cases where the palpebral conjunctiva is covered with the characteristic sago-like granulations. Knapp speaks very highly of it, declaring that it hastens the cure of the affection in a very marked degree.

It is performed as follows: the lid is everted, exposing the swollen mucous membrane studded over with the "spawn-like" bodies. This is then scarified with an instrument consisting of several little knife-like points, although some do not scarify at all. Next, a special pair of forceps, of which Knapp's fashioned at the end like a pair of minute stirrups seems the best, grasps the membrane, beginning either at the inner or outer end of the *cul-de-sac*; the instrument being closed, the operator draws it towards him, squeezing out the contents of the granulations with the contained microbes. In this way the whole membrane is gone over as carefully as possible, leaving the conjunctiva almost as smooth as normal. The pain being rather severe, a general anæsthetic is necessary; ether being the one preferred in this city. If the operation be thoroughly done, in order that none of the granulations be left behind to cause a relapse, the result will be very gratifying, and as far advanced in the direction of a perfect cure, as if the sulphate of copper or any of the older methods had been used for months. It is customary to follow up squeezing by the employment of the "bluestone," after the primary irritation has subsided, in order that any tendency to relapse may be prevented. Knapp has exhibited several cases where he employed this operation, and seems to be very much pleased with the results.

Sattlee, who had the honor of discovering the micro organism of trachoma, performs an almost similar operation, curetting the conjunctival *cul-de-sac* thoroughly, in order to remove the colonies of microbes which may be present, then washing out the wound with a 1-500 solution of sublimate. Trousseau, criticizing this method, fears that the deep curetting may be followed by entropion. However, even sulphate of copper has the same objection urged against it, beside taking months longer to bring about a cure.

Some New York surgeons use, instead of the curette, a tooth-brush with short stiff bristles dipped in a 1-500 solution of sublimate, and scrub the conjunctiva thoroughly, washing the lids after eversion for a few days with the same solution.

Many cases are cured this way which had long been treated without success by cauterization with sulphate of copper.

Taking all things into consideration, the operation by squeezing seems to be the preferable one, and less liable to be followed by organic changes of an entrophic nature.

CANADIAN MEDICAL ASSOCIATION.

The next meeting of the Canadian Medical Association, which will be held in Montreal on the 16th, 17th and 18th September, 1891, promises to be of more than usual interest. Many prominent members of the profession have promised to be present and contribute papers, and although the number is by no means complete, yet, from the following list, the scientific interest of the next meeting is well assured :

The Address on Surgery—Dr. Praeger, Nanaimo, B. C.

The Address on Medicine : "Malaria, its Relations to and Influence over other diseases."—Dr. Bray, Chatham, Ont.

Address on Therapeutics : "Water, Some of its Therapeutic Uses."—Dr. Spencer, Brandon, Man.

Dr. V. P. Gibney (New York)—"Early Diagnosis, the most important factor in the Treatment of Pott's Disease of the Spine."

Dr. John Ridlon (New York)—"Spondylitis."

Dr. John Price (Philadelphia)—"A Plea for Early Hysterectomy."

Dr. F. Buller (Montreal)—"Functional Abnormalities of the Ocular Muscles." This paper is expected to be discussed by Drs. Stevens, Roosa and Webster (New York).

Dr. Mullin (Hamilton, Ont.)—"Some Notes on Cases of Post-partum Hæmorrhage."

Dr. Cotton (Cowansville, Que.)—"Appendicitis."

Dr. Slack (Farnham, Que.)—"Surgical Cases occurring in Country Practice."

Dr. Small (Ottawa)—"Malignant Disease of the Cervix Complicating Labor."

Dr. W. S. Muir (Truro N. S.)—"Graves' Disease."

Dr. Geo. Fenwick (Montreal)—"Calculous Pyelitis."

Dr. Shepherd (Montreal)—"Case of Strangulated Cæcal Hernia."

Dr. Buller (Montreal)—"Conservative Surgery of the Eye."

Dr. Jas. Bell (Montreal)—"The Local Treatment of Tuberculosis of the Bladder through a Suprapubic Incision."

Dr. R. F. Ruttan (Montreal)—"Lead and Drinking Water."

Dr. Wyeth Johnston (Montreal)—"Microscopic Examination of Sputum in Heart Disease."

Dr. Phelps (New York)—"The Mechanical Treatment of Hip Joint Disease."

Dr. Macallum (Toronto)—"The Pathology of Anæmia."

Papers have also been promised by Drs. T. Johnson-Alloway, Major G. E. Armstrong, H. Lafleur and L. Smith (Montreal).

An entirely new, and doubtless to many, an interesting, feature of this year's meeting will be the devoting of an hour and a half each day to visiting the city hospitals. These hospitals are—Hotel Dieu, Montreal General, and Notre Dame. Members of the staff attached to these institutions have kindly undertaken to exhibit cases and present other matters of interest in connection with hospital work.

The delegates and visiting members will be tendered a dinner by the profession of Montreal, to be held in the Windsor Hotel, and arrangements are being made for an excursion should time and weather permit.

A CANADIAN MEDICAL TEMPERANCE ASSOCIATION.

It has been decided to organize a Canadian Medical Temperance Association during the meeting of the general Canadian Medical Associations in Montreal this month (September). Similar associations already exist in the United States and Great Britain. The objects will be to advance the practice of total abstinence in and through the medical profession, and to promote investigation as to the action of alcohol in health and disease. Members will be expected to be total abstainers, but will not be required to sign any pledge. The liberty of members in prescribing alcohol as a medicine will be entirely uncontrolled. All regular practitioners of medicine, or of any of its recognized departments, who are willing to join such an association, will confer a favor by sending in their name and address *at once* to Dr. Harley Smith, 256 Spadina Ave., Toronto. To become members, it is not necessary to be present at the meeting, but it is earnestly hoped that all who can, will go to Montreal, in order to give the association a good start.

There will be a nominal fee, sufficient to cover the expense of management.

◆

Ice in Phlegmasia Alba Dolens.—Dr. Jno. A. Miller (*Pacific Med. Jour.*) in entering on the subject of phlegmasia alba dolens, speaks highly of the efficiency of the cold treatment of the disease. He first used it in 1886, and since then has used it in six cases. He says :—"My first case became infected from the nozzle of a viginal syringe, which the nurse had employed in a crude manner. A pelvic cellulitis on the left side was the beginning or first evidence of anything wrong; in the course of a few days, the corresponding limb first became painful and afterwards œdematous. That I exhausted all the resources that were laid down in the books at my command, is to put it mild, for the pain in the limb was so excruciating, especially in the calf of the leg and in the inner aspect of the thigh from the groin to the knee, that notwithstanding large and repeated doses of morphine, rubefacients and hot fomentations, the patient got little or no relief. I had treated pelvic cellulitis and perimetritis satisfactorily by means of ice bags and cold water compresses, and there was every reason that a similar application to the painful regions of the affected limb would result in palliation, if not hasten the cure. This was under protest from the patient, because she dreaded the shock and feared bad consequences. I, however, insisted, and carried out my intentions. The procedure was in the following manner : an ordinary large towel was dipped into iced water, wrung out and clapped around the affected limb; a heavy flannel roller bandage was then applied from the toes upward to the groin. Flannel is preferable, because it does not get hard when moist, and remains softer under similar conditions than cotton material. On the most painful parts, like the inner aspect of the thigh, the popliteal region and the calf of the leg, I laid rubber bags filled with ice. These were kept in place by a circular binder, independent and outside of the roller bandage, The patient was a little shocked when the cold towel was first applied, but the unpleasantness was only momentary, and then the reaction brought ease and comfort. She desired the ice bags to be removed quite often at first, as she claimed they relieved the pain, as anything else had never done before. The morphine was at once discontinued. The pain was entirely controlled by the cold. The temperature dropped from 103° to 100° the next day, and the patient commenced to improve, which continued uninterruptedly. The towel was freshly dipped from four to six times in the twenty-four hours. As soon as the patient experienced relief, she was quite anxious to endure the temporary chill from a fresh compress, because the limb felt always better for it afterwards; as the towel soon became dry and hot, and this gave rise to painful symptoms again. Since this first gratifying experiment I confidently and unhesitatingly employed the identical local measures, and the success was uniform and decided.

The "Uncontrollable" Vomiting of Pregnancy.—Dr. Amand Routh writing to the *Br. Med. Jour.* says: In an editorial on the above subject in your journal of May 30th (p. 1192), allusion is made to a paper read by me at the Harveian Society, in April, and I am stated to have "strenuously advocated the painting of the cervix with a strong solution of iodine." This is not quite correct. I advised that the iodine should be applied to the cervix and to the vaginal end of its canal; and stated that since 1883, when I first adopted the theory that the vomiting of pregnancy was reflexly due to the centre of irritation near the os uteri internum, I had used this method of counter-irritation in every severe case, and that I had not as yet failed to relieve the vomiting immediately. A few cases have needed one or two repetitions of the application at the end of from five to fifteen days, when the effect of the counter-irritation had worn away, but the relief then became permanent.

In the paper referred to, I argued that a prompt use of this remedy in severe cases would prevent the occurrence of the so-called "uncontrollable" or "pernicious" type of the disease, which differs only in degree and not in kind from the milder forms. Many cases, "uncontrollable" when treated by drugs, local application of cocaine, etc., have yielded to this counter-irritation.

I have taught this method for some years at Charing Cross Hospital, and students have told me how useful it has proved to them afterwards in private practice, and I trust that others may now give it a trial, for I believe it to be perfectly safe, easy, and certain. Hitherto I have found that a solution of iodine made of equal parts of iodine, iodide of potassium, spirits of wine, and water, gives the surest results.

THERAPEUTIC VALUE OF INDIAN HEMP.—Mr. Suckling, of Birmingham, writing to the *Ther. Med. Jour.* on the above drug, says: "I have, during the last few years been accustomed to prescribe Indian hemp in many conditions, and this drug seems to me to deserve a better repute than it has obtained. In one form of insanity, more common in women than in men, and brought on usually by mental worry, often owing to the illness of a near relative, or by a moral shock, the drug acts almost as a specific. In this affection the patient is depressed and apprehensive, she imagines that animals are after her, or that someone wants to injure her. There is great mental confusion and mental loss, the patient is unable to carry on any conversation, and sometimes is unable to dress herself, the condition being one of acute dementia. I have notes of several such cases that have been cured by Indian hemp within a fortnight. I usually give 10-minim doses of the tincture thrice daily, combined with iron and strychnine. I prescribe also complete rest and plenty of food. The Indian hemp is an essential factor in the treatment, for without it the rapid recovery does not ensue; it seems to remove the mental distress and the restlessness. Indian hemp has proved very useful in my hands in the treatment of melancholia and mania. I have also found this drug of great value in the treatment of chorea when arsenic fails, as it frequently does. It may be combined with chloral with advantage in such cases. In migraine the drug is also of great value; a pill containing ¼ grain of the extract, with or without a ¼ grain of phosphide of zinc, will often immediately check an attack, and if the pill be given twice a day continuously the severity and frequency of the attacks are often much diminished. I have met with patients who have been incapacitated for work from the frequency of the attacks, and who have been enabled by the use of Indian hemp to resume their employment. This drug is also a valuable gastric sedative in cases of gastric ulcer and gastrodynia. It may be combined with nitrate of silver, and it increases the efficacy of the latter. Its value is well known to asylum physicians, but it does not appear to have obtained the confidence of the profession generally. Indian hemp is also a very valuable hypnotic.

PRURITIS ANI.—Dr. A. H. Ohmann-Dumesnil, of St. Louis College of P. and S., thus treats pruritis ani which may be of a few months' or a few years' standing (*St. Louis Med. and Surg. Jour.*) The functions of the rectum must be properly performed. Tone up the nervous system as follows:

℞—Syr. hypophos. co., ... ℥ iv.
Sig.—ʒj. in water four times a day.

After a time the following is ordered:

℞—Liq. kali. arsenit., ... ʒ ijss.
Vini ferri, ... ℥ iv.
Sig.—ʒj. in water after each meal.

After having been taken for a sufficient time, the following pill is administered:

℞—Strychniæ sulph., ... gr. j.
Ferri redacti,
Quiniæ bisulph., ... āā ʒ j.—M.

Ft. massa et divide in pil. No. 60. Sig.—One pill three times a day.

Such anodynes should be given as to produce refreshing sleep and rest. For local treatment, the anus and rectum should be examined and disease treated when found, such as fissure, piles, ulcers, etc. If there is much thickening of the skin, pure creasote should be applied night and morning ; this will pain for a short time, but soon gives relief. This should be followed night and morning by an anti-pruritic remedy, which should also be anti-parasitic, such as the following :

℞—Hydrarg. bichlor., ...	gr. jss.
Ammon. mur., ...	gr. ij.
Acid. carbolic., ...	ʒ j.
Glycerini, ...	℥ ij.
Aquæ rosæ, q.s. ad. . .	℥ vj.—M

Sig.—Apply locally.

Strychnine as an Antidote to Alcohol.—It is a well-established fact that when alcohol is employed in acute diseases (*Jour. de la Santé*), as pneumonia, much larger doses are tolerated by the patient if strychnine is simultaneously administered. A Russian physician, Dr. Yarochewski, has recently reported some experiments on dogs, bearing on the subject. He gave them alcohol of a strength of 42°-65°, and produced a staggering gait by the injection of 60 grams, and complete intoxication with 90 grams. The alcohol was given for a week and produced considerable emaciation, followed by death. If, however, a hypodermatic injection of 2 milligrammes of strychnine was administered with each dose of 30 grams of alcohol, the latter could be run up to 180 grams without the development of intoxication or symptoms of strychnine poisoning. On the ground of these experiments the author formulated the following conclusions : 1. Strychnine suppresses the toxic action of alcohol. 2. It enables persons to ingest large quantities of alcohol for a long time without appreciable injurious effects on the organs. 3. The increased doses of alcohol which may be taken with impunity, if associated with strychnine, have a limit, *i.e.*, as soon as the quantity of strychnine necessary to counteract the effects of the alcohol commences to give rise to toxic symptoms. 4. Strychnine is applicable as an antidote in all forms of alcoholism.

Fetor of Lochial Discharges.—We remember hearing the late Angus MacDonald, of Edinburgh, after examining the lochia of a recently delivered woman, that he "always liked to have them smell." He was a giant in his day, but that day has gone, and it would not be easy to find a practitioner who prefers stinking discharges. Boxall (*Practitioner*), has conducted researches upon 640 patients to determine the relationship existing between fetor in the lochial discharges and septic infection ; six deaths occurred from sepsis among these patients. He concludes, from his observations, that septic infection may take place without fetor, and that fetor also may occur without sepsis or fever. Fetor is most frequent in cases where the tissues are bruised and torn, and, therefore, in primiparæ and operation cases. It is generally but not invariably associated with fever, but in such cases the fever almost always precedes the fetor by a considerable interval. While the presence or absence of fetor is a very uncertain guide to the presence or absence of sepsis, still it indicates the failure to maintain local asepsis, and vigorous antiseptic measures should be at once instituted. The vulva and vagina should first be cleansed and the uterus not be entered unless it is absolutely necessary.

Treatment of Condylomata.—This may be summed up as follows, *Internat. Jour. of Surg.*:

1. Many disappear when kept dry by the application of powders, the best being either calomel or boracic acid.
2. In some cases an astringent, such as tannic acid, will effect a cure ; but many cases require more radical measures.
3. In the more severe cases, all treatment should have as its object the destruction of the base of the growth. In ordinary cases, electrolysis is the best treatment. In very severe cases, the galvano-cautery is the very best treatment, as there is no hæmorrhage, and little pain. The Paqueiin cautery and escharotics almost invariably leave a painful wound, confining patient to bed.
4. After removing condylomata, the condition that caused them should be treated, otherwise they are apt to re-develop.

The Treatment of Chronic Ulcers.—Dr. J. M. J Finney, of Baltimore (*Maryland Med. Jour.*), states that he has obtained the quickest and best results from multiple deep crucial incison through the base of the ulcer. This is done in the following manner: After producing either a local anæsthesia, with cocaine, or the primary stage of general anæsthesia, the incisions are made deep enough to go through the layer of dense fibrous tissue underlying the ulcer, and should extend far enough beyond the edges to reach healthy tissue. If there are any large veins in the immediate neighborhood of the ulcer, they should be cut through. The succeeding hæmorrhage, which is often quite profuse, and rather beneficial than otherwise, is easily controlled by pressure with a snugly applied bandage. In rare instances it may be necessary to control the hæmorrhage by a ligature or stitch. A ten per cent. ointment of iodoform and vaselin is then applied, which is allowed to remain for three or four days, and then renewed.

TINEA TONSURANS.—Simpson (*Med. Analectic*), has had good success in the treatment of ring worm of scalp and body, as follows:

Cut the hair short and wash the scalp well with tincture of green soap, and apply the following solution with a camel's hair brush:

℞.—Hydrag. perchlor. . . . gr. i.
Collodii. . . . . . . ℥ i.—M.

This treatment acts (1) by destroying the fungi. (2) By the corrosive sublimate being conveyed to the root of the hair by the ether of the collodion, and (3) by the film formed by the collodion shutting off the supply of oxygen to the fungi, thus assisting in their destruction.

WOMAN'S MEDICAL COLLEGE, TORONTO. — We have received the announcement of Woman's Medical College for the 9th session, 1891-92. It shows that the institution, under the fostering care of a number of zealous workers, is spreading its roots wider and deeper. We wish them all success. Their work so far has been largely, if not entirely, a labor of love.

We note the following changes in the College teaching staff of this vigorous institution: Demonstrator of Anatomy—Dr. S. P. Boyle *Vice* Dr. Alice McLaughlin, resigned; Associate Lecturer in Obstetrics—Dr. H. T. Machell; Lecturer in Theoretical Chemistry—Prof. Shuttleworth; Lecturer in Toxicology— Dr. Graham Chambers; Assistant Demonstrator in Anatomy—Drs. L. A. Davis and Lowe Graham.

DIURETIN IN DROPSY.—Dr. R. A. Babcock in the *N. Y. Med. Jour.* gives the following as his conclusion on the use of the above drug in dropsy. He gives as a rule ninety grains in 24 hours or seven and a half grains every 2 hours:

1. Diuretin (Knoll) is a diuretic of great power and promptitude, suitable to all forms of dropsy.

2. Not increasing arterial tension, it is likely to succeed where digitalis, caffeine, and their congeners fail.

3. In cases of cardiac dropsy, with great feebleness of the pulse and arrhythmia, it will strengthen and regulate, rather than depress, the heart's action.

4. It appears to cause no irritation of the stomach or kidneys.

5. It requires to be given to the extent of from ninety to one hundred and twenty grains daily, and preferably in small doses frequently repeated.

6. It is best administered either in solution in warm water or in gelatin-coated pills, since, if exposed to the air in powders, it undergoes change, with precipitation of much of the insoluble theobromine.

The salt is sodio-theobromine-salicylate, consisting of theobromine, with nearly an equal proportion of salicylate of sodium. It is expensive, being listed by McKesson & Robbins at three dollars an ounce.

GONORRHŒA.—Dr. Broome, of St. Louis (*Weekly Med. Review*), recommends the following method of treating gonorrhœa. Instead of rendering the urine alkaline he irrigates the urethra and bladder with an acid, using a solution of benzoic acid. Besides bathing the entire penis in hot water several times daily, the patient is subjected to no change of treatment for several days; then the urethra is insufflated with five grains of the pure substance of methyl-violet, which seems to penetrate the urethra walls and destroy the deep-seated micro-organisms. Average time to cure the disease is two weeks.

DR. N. M. GRAY, of Allegheny, Pa., says: I have tried PAPINE in two cases, and with the best effects. Both were cases of children from one to three years old, and both so complicated with cerebral trouble that I feared to use opium or any of its preparations, and yet I wished for an anodyne to control some very marked symptoms.

So I tried the PAPINE, and am happy to say that it had the desired effect, without any of the unpleasant consequences so often following the use of the drug in any form I have heretofore used. I think it an excellent preparation for that class of diseases, and intend to use it hereafter.

The New England Medical Monthly.—We have great pleasure in noting the tenth anniversary of the *New England Medical Monthly* which has just issued a souvenir edition to celebrate the completion of its first decade. We congratulate our esteemed brother editor, W. C. Wile, A.M., M.D., on the position his journal has among the monthlies of to-day. We always expect to find a good deal of common, hen sense, when we tear off the wrapper. Many happy returns both of subscriptions and of decennials.

The fifth annual meeting of the American Orthopædic Association will be held at Washington September 22nd, 23rd, 24th and 25th, 1891.

Books and Pamphlets.

On Aphasia and Loss of Speech, and the Localization of the Faculty of Articulate Language. By Frederic Bateman, M,D., F.R.C.P., Lond.; Senior Physician to the Norfolk and Norwich Hospital; Foreign Associate of the Medico-Psychological Society of Paris, etc., etc. Second edition; revised and enlarged. London: J. & A. Churchill. Toronto: Carveth & Co., 1891; pp. 420.

The first edition, published twenty years ago, is so widely and universally favorably known, not only to the medical profession, but to scientific men generally, that no words of ours can adequately express the pleasure which must be felt in perusing the second edition. Now-a-days new editions of books often come quite as regularly as a hen lays her eggs, and often with as little change, or new thought or matter as in the above-mentioned product. The author here has, however, preferred to wait till he had something more to give the medical and scientific world, till the horizon of scientific controversy was somewhat cleared, and the tangled skein of medical psychology partly unravelled. The work is up to the present date, and a vast amount of new matter has been added, amongst which may be noted the chapter on the jurisprudence of asphasia. The work will well repay perusal by all medical men, and we heartily commend it as *facile princeps* of its kind in the English, and, indeed we believe in any language.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A.B., A.M., M.D., LL.D., Late Professor of Surgery in Bellevue Hospital Medical College, and Surgeon to Bellevue Hospital, New York, etc., etc. Eighth Edition, revised and edited by Stephen Smith, A.M., M.D., Professor of Clinical Surgery in the University of the City of New York, and Surgeon to Bellevue and St. Vincent's Hospitals, New York. Illustrated with five hundred and seven woodcuts. Philadelphia: Lea Brothers & Co.

The old edition has been enriched by clinical cases. The editor has endeavored to bring the work abreast of the times, and has succeeded fairly well. As a matter of fact we are inclined to think it would have been wiser for both editor and publisher to have produced a new book, for in many cases the "adding such new facts, cases, and opinions as were deemed necessary to render the work a correct exponent of the present state of knowledge in this department of practice," has resulted in not the most satisfactory reading—a kind of "silk on fustian" whole.

The Surgical Treatment of Wounds and Obstruction of the Intestines. By Edward Martin, M.D., Instructor in Operative Surgery University of Pennsylvania, etc.,; and H. A. Hare, M.D., Professor of Therapeutics, Jefferson Medical College; Attending Physician to St. Agnes' Hospital. Philadelphia: W. B. Saunders, 1891. Pp. 169.

This is the prize essay of the Fiske fund, and contains a large amount of original matter, which will be very valuable to the surgeon. The authors have incorporated the fullest statistics regarding gun-shot wounds of the abdomen. We commend the work to the notice of our readers interested in the subject.

The Pocket Anatomist. Founded upon Gray. By C. Henri Leonard, A.M., M.D., Professor of the Medical and Surgical Diseases of Women and Clinical Gynæcology, in the Detroit College of Medicine. Fourteenth revised edition, containing Dissection Hints and Visceral Anatomy. Detroit, 1891. The Illustrated Medical Journal Co., Publishers. Cloth 297 pages, 193 Illustrations; price, postpaid, $1.00. Toronto; Carveth & Co

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Original Communications.

THE PREVENTION OF MORPHINISM.

BY J. B. MATTISON, M.D.,

Medical Director, Brooklyn Home for Habitues, Brooklyn avenue, Brooklyn; Member American Medical Association; American Association for the Cure of Inebriety.

The prevention of disease ranks higher than its cure, and he who essays the *rôle* of benefactor along this line, deserves well of his fellows, be results success or the reverse. I shall presume to make effort at filling that *rôle* to-day; shall try to command your attention by enlisting interest in what promises to remove, very largely, a stigma that has rested long and weightily on the healing art, and by wiping out this blot on the escutcheon, secure favor by virtue of not only an advance so decided as to mark a new era in therapeutics, but, above all, by lessening in large degree the main factor in a disease that spares neither sex, state nor condition and which, sad to say, claims for its victims more of our *confrères* than the world will ever know.

Pain and insomnia, with the use and abuse of morphia for their relief, are the leading twin causes of the morphine disease. Quite apart, however, is a peculiar power, *per se*, in this drug that makes it, so often, a bane after blessing—a snareful influence than which a stronger, save one, does not exist, and which carries with it, too often degradation and death. It goes then, without saying, that if one can offer that which will bring ease, and win the "sweet restorer" *without* this harmful sequence, he will entitle himself to the plaudit of profession and public, by averting a danger that threatens the well-being of the person and society at large. Such, in much measure, I think we have in codeine and narceine. The former has long been used to a minor extent; the latter is rare. Opinion has varied as to their value, but my experience with each, in a field specially unique, and to some extent unequalled, has brought with it a belief in their virtue along painful, and insomnic lines, and a confidence so pronounced that I bespeak for them your careful, practical consideration.

I am not willing to say there can be no codeinism or narceinism, despite the statement of Fischer that "tolerance and habituation analagous to morphine, are not caused by codeine," but I do assert that the snaring seductive power of codeine is vastly less than that of morphia, and that this one negative power for harm alone should secure for it a larger share of professional confidence and field for remedial work than it has hitherto had. Nor am I am ready to say that codeine has a value, aside from its anodyne, equal to morphia in inflammatory conditions, nor that it has like power as a stimulant. To neither of these does my argument apply, but solely to its use in painful, agrypnic conditions, apart from temperature rise or cardiac decline.

Codeine was discovered in 1832, by Robiquet, who wrote in its favor, and two years later, Barbier and Bertha, after a series of careful experiments, claimed its special tendency towards the sympathetic system. These reports were confirmed but, like some other vauluable drugs, digitalis, for instance, the merits of codeine were for many years in abeyance, and only within the last half decade has it come well to the front with a claim for doing good work too strong to be disregarded.

Foreign physicians, especially on the continent. have always led in the use of codeine, but the time is quite here for us to follow their good example, and I cannot now do better than to commend to your careful reading a valuable paper by Lauder Brunton, in the *British Medical Journal*, June 9, 1888. Dr. Brunton lauds the drug highly, declaring he is satisfied that, to use his exact language: "It has a powerful action in allaying abdominal pain." He cites various painful conditions in which it has served him and his colleagues well, and closing his paper remarks that he "thinks it not improbable that codeine, which has almost fallen into disuse, as an anodyne, will again come into vogue." I endorse every word of Dr. Brunton's, and venture the belief that we are on the eve of a larger use of codeine, in pain and insomnia, than the profession has yet known.

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*Read before the American Medical Association, Washington, May 6th, 1891.

I will not weary you with stating the various morbid conditions that codeine will control. Its province is more or less relief of any and every pain, but it is specially adapted, by virtue of its non-tolerant power, to neuralgic disorders which stand so largely and so closely in relation to the abuse of morphine; and, in general, to any and all long-continued pain. Even in incurably painful conditions it is often better than morphia, bringing ease without the unpleasant gastric and other sequlæa of the latter drug.

The hypnotic action of codeine is also distinct and decided, and may be quite apart from any analgesic need. It is a reliable soporific, though sometimes acting more slowly, yet, without the dullness or headache often followling morphine.

A great gain in using codeine *vice* morphine as an anodyne and hypnotic is that it lacks that inexplicable influence of the latter—before noted—in making itself felt, apart from relief of pain, and so creating a morbid condition, a so-called "craving," that will not be denied. I confess to you, gentlemen, that though I have been studying opium and opium habitués for more than twenty years, I do not fully understand it, but am more and more impressed by the peculiar power with every case that comes under my care.

Another point in favor of codeine is the non-need of increasing the dose on long usage. The reverse so often obtains with morphia that it marks one of the distressing features attending habitual use; growing by what it feeds on, it steadily adds to the hapless lot of those who from force of conditions beyond control, find themselves compelled to mind an imperious power they are helpless to resist.

To get good results from codeine it is essential to have it pure. Such is supplied by Merck, of Darmstadt and New York. The sulphate and phosphate—the first by mouth, and other for subcutaneous use—are the most eligible. The latter is freely soluble—more so than morphia, my usual solution being six grains to the drachm. It should be freshly made; bitter almond water tends to preserve it; I have never noted local harm.

The dose required is larger than morphia. Fischer says triple; Bartholomew four times. Fischer has written more largely of codeine—detailing several years, experience—than any other foreign physician, and to him is mainly due my extensive use of the drug. I commend to you his papers in the German medical press of 1888. An initial dose of one-half grain by mouth, or one-quarter to one-half grain by skin is safe, and may be repeated and increased as required.

Narceine, though so little used, is a soporific of value. It is not an anodyne. Failure will result if pain be present. The dose should be double that of morphia. The hydrochlorate—Merck—admits of hypodermic use.

Gentlemen, you have my paper. It is a plea for less morphine—more codeine. The usually accepted statement that its anodyne and hypnotic action is weak and uncertain, is wrong. It has a constant and well marked effect as an analgesic and soporific, without unpleasant secondary symptoms—nausea, headache, and general malaise, so common with morphia. I urge you to use it, and especially do I commend it to the junior members of the profession, who too often are enthused with that modern mischief-maker, hypodermic morphia, and have not yet gained the wisdom given their fathers, whose experience has led them to discard, increasingly often, I am glad to say—a power so potent for ill. I speak feelingly on this subject, gentlemen, for my professional work for many years has brought me in daily contact with those—mostly our own guild—whose lives have been blighted by morphia.

The easing of pain ranks next to the saving of life, and when in doing such noble work, we do it without entailing a bondage, binding, it may be, for life, the millenium will be nearer than now.

ORTHOPÆDIC SURGERY AS A SPECIALTY.*

BY A. B. JUDSON, M.D., NEW YORK.

A flourishing medical society sometimes divides into sections. It is an involuntary process, or at least, one to which the members are forced by the necessity of thoroughly accomplishing the objects of the society. The process may be called an analysis. In the present instance, however, if I understand the organization of the Congress of American Physicians and Surgeons, we have a synthesis. A number of societies voluntarily combine to secure ends which were not contemplated at the beginning of each. A division of labor having been made, according to which each society has its special work to do, it is proper and useful for the societies to meet together for co-operation. Let us, therefore, briefly consider some of the salient features which mark our specialty of orthopædic surgery. A better knowledge of ourselves will put us in more quick relation with other workers, both general and special, and enable us better to do our humble part in the grand plan.

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* The President's Address, delivered before the American Orthopædic Association at Washington, D.C., Sept. 22nd, 1891.

In common with other specialists, we occasionally hear that we are limited in the possible range of our achievements. The limitation is, however, entirely voluntary, and the work within these limits is practically inexhaustible. If we were not so busy, we might perchance be troubled because we are not always and exactly understood. The sign before an orthopædic hospital in New York is supposed by some of the passers-by to indicate a homœopathic institution. I am probably not alone in having been asked to perform the minor surgical operations of the chiropodist. Many, even among the learned, suppose that the latter part of our name is derived from the Latin word for *foot*, instead of from the Greek for *child*. We are also confounded in the minds of some with the instrument makers. I mention these things in passing, without a serious thought. If they exist, like morning mist, they will pass away.

It is well, however, to recognize the fact that our practice is comparatively lacking in popular qualities. We have no critical, capital, or brilliant operations. What of brilliancy is there in keeping a limb in such an attitude that the weight of the body in locomotion shall be a favorable, instead of an unfavorable agent, until the natural growth of the member results in comparative symmetry; or in controlling the environment of the diseased joint and the patient, so that the natural processes of recovery and repair shall have their triumph, while the limb is daily growing in symmetry and ability with the growing child? This is not bold surgery, but there is great pleasure in watching and reverently assisting these constantly recurring natural miracles. And will any of us forget the delightful friendships made among our little patients, their pretty bashfulness, their ready confidence, their irrepressible cheerfulness, their graceful acceptance of what is, alas, inevitable? The combination in them of childish and heroic qualities is a daily wonder. To watch them at play is like a dream in which the birds and wild flowers are enacting a tragedy, and improving the precepts of Stoic philosophy.

Our practice is not only lacking in brilliant achievements, but it is also uninviting, because, as a rule, our patients do not make absolute recoveries. There is always, or nearly always, a residuum of disability and deformity, and in this is to be found perhaps one reason why our specialty has existence; for, what general practitioner would lightly assume the care of a case so exceptional in his practice, and so momentous as those which fall into our specialty?

The why and the wherefore of specialties, in general, and ours, in particular, are questions of interest. Some will say that we have a natural aptitude for mechanics, an inherited preference for slow and sure methods, compared with those that are quick and uncertain, or an inborn reverence for what is physically demonstrable. These personal characteristics may explain why some of us are orthopædists, but I believe the reason why our specialty exists and thrives, is to be found in the desire of the public, the final arbiter, that experts should be invited to bear the responsibility of orthopædic cases.

One very attractive feature of orthopædic practice, is its *reality*—for want of a better word. It is especially the domain of physical demonstration, where the acceptance of pathological doctrine, as well as therapeutic precept, must be preceded by absolute proof. Here, subjective symptoms are forgotten in the presence of objective signs. The data for diagnosis are visible, palpable, and mensurable. Treatment is by forces whose action is nicely directed, increased, diminished, and accurately measured. The very weight of the body is duly considered in trauma and therapeutics, and finally the results of treatment are recorded in degrees of a circle and fractions of an inch. Dealing thus, as we do, with physical realities, it is well for us to keep our eyes open to the moral verities also, which no less form part of the tissue of our daily professional work. Let us remember that diligence is the price of success, and that the only desirable success is that which is reached by the rejection of error, and the loyal recognition of truth.

Since our last meeting, there has occurred the death of one of our corresponding members, whose hostility to error might in all friendly criticism, be called intemperate, one whose diligence and devotion to the interests of his patients make him an exemplar worthy of our affectionate remembrance. But I will not trespass on the subject of the first paper of our session, which is by Dr. A. J. Steele, of St. Louis, on the orthopædic work of the late Mr. Thomas, of Liverpool.

A DISCUSSION OF THE MERITS OF THE DIFFERENT ARTICLES OF INFANT DIETARY.*

BY W. J. GREIG, B.A., M.B., L.R.C.P., TORONTO.

(Continued from September number.)

Next we come to Cow's milk, which is most used, and, when suitably prepared, is the best substitute for mother's milk. The differences between cow's and mother's milk are as follows:

Cow's.		Mother's.
Acid.	Reaction.	Alkaline.
13.2 per cent.	Solids.	12–13 per cent.
4 "	Fat.	3–4 "
4 "	Albuminoids.	1-2 "
4.5 "	Sugar.	7 "
.7 "	Ash.	.1–.2 "

And the casein of cow's milk coagulates into a tough cheesy mass in the stomach. This mass is very indigestible. Mother's milk coagulates into fine flaky curds. Cow's milk contains less sugar, slightly more fat, more albuminoids, more salts and other extractives. Experience teaches us that, up to nine months, an infant cannot digest pure cow's milk, owing to the excess of casein. Indigestion, with flatulence and pain, vomiting and diarrhœa, is set up, and unless a change is soon made, the child will not thrive and may die. Hence the necessity of altering in some way the relative composition of cow's milk. The most natural thing to do, is to produce such an alteration that it will resemble the mother's milk, and while this is theoretically correct, it is found to be clinically correct also. All the efforts of scientific medicine have been to reach this desirable goal. If cow's milk is diluted equal parts with water, the proportion of casein is right, but the fats and sugars are defective. If one part cow's milk and two parts water are used, the percentage of sugars and fats are more defective, and the casein—while below the average—is still in suffirient quantity for nutriment. The greater the amount of dilution with water, the finer the curd which is formed in the stomach. Dr. Rotch, after a series of experiments, concluded that cow's milk one part, water five parts, produced in the stomach a curd the most closely resembling the curd of mother's milk.

If an effort to induce the parents to adopt some of the more exact methods of preparing cow's milk fails, preparations as follows may answer:

For an infant one or two months old, cow's milk one part, boiled water two parts, lime water sufficient to make alkaline, and sugar.

At three months, the same ingredients, but equal parts water and cow's milk.

At nine months, milk two parts and water one part.

These various preparations, though defective in many ways, when sterilized and partly peptonized, may give you very good results. But the best method of all, scientifically accurate, and in which you know exactly what you are doing, is Meigs' modified method. The original preparation which he has made for years and with considerable success, is as follows:

Cow's milk, ...	℥ j.
Cream, ...	℥ ij.
Lime water, ...	℥ ij.
Sugar water, ...	℥ iij.

This sugar water is of the strength of ʒ iijss. milk to ℥ iij. of water.

There are two objections to this formula, although in actual use it has been very successful: 1st. It is almost impossible to obtain a standard preparation of cream. 2nd. It is strongly alkaline. If you dilute the lime water three times before adding it to the milk, the second objection is overcome.

In Dr. Meigs' modified method, the first objection is overcome also. The result is a preparation which resembles as nearly as possible mother's milk, and one in which all the manipulations are perfectly under control. His method is as follows: he uses a tall tin vessel with a narrow circumference, holding exactly a quart. In the centre, at one side, an opening is made which is closed with a rubber cork. He gets as good a milk as possible, buying it preferably from a man who keeps cows, rather than from a middleman or dealer—the chances of adulteration being less. The milk is allowed to stand three hours in this tin. Then the cork is withdrawn, and the upper half of the milk will escape. This half contains all the cream, and Dr. Meigs considers that it is equal to a mixture of cream ʒ ij. and milk ℥ j., as in his old method. He then proceeds as in his old method, adding ʒ ij. lime water and ʒ iij. sugar water to every ℥ iij. of the above cream mixture. Here we part with him, believing that he uses too much lime water. We prefer to follow from this point the method adopted in the New York Infant Asylum. The cream mixture is obtained as above. It is then diluted equal parts with sugar water of the same strength as above, viz., ʒ iijss. of milk sugar to ℥ iij. of water. One or two measures of the peptogenic milk powder is added, and it is allowed to stand for three hours—by which time the milk may be slightly bitter—but children take it well. The milk is not thoroughly peptonized by this method and leaves enough work for the stomach to do. Sufficient lime water is now added to turn litmus paper faintly blue. Then the preparation is bottled and sterilized, and is ready for use.

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* Read before the Ontario Med. Association, June, 1891.

For reasons and methods of sterilization, I must refer you to a paper read by me at a meeting of the Toronto Medical Society and published in the *Canadian Practitioner* for May 1, 1891.

To summarize, in conclusion, if for any reason it is necessary to wean an infant, the best substitute food is Meigs' modified mixture, prepared as described, given in the proper amounts and at regular intervals (which are very important points), peptonized and sterilized. If this does not agree, try the condensed milk, prepared as described and sterilized.

Between the changes of food, it is an excellent plan to clear out the bowels, and feed the child on some very simple food, such as white of egg mixture, beef tea, barley water, etc., for a day or so. If the condensed milk does not agree, you may try the plain cow's milk, diluted in different proportions; or J. Lewis Smith's dextrine food, which I have not had space to refer to.

CASE IN WHICH LIGAMENT WAS TORN FROM THE PATELLA. BONE AND LIGAMENT SUTURED TOGETHER.

BY DR. MACFARLANE, TORONTO.

Robert McKenzie, laborer, æt. 60, admitted to the Toronto General Hospital on April 18th, 1891. Family and personal history are excellent.

While working in a barn on the 17th of April, he slipped through a hole in the floor, the left knee striking the edge of the hole. After this accident the knee became greatly swollen and the power of extending the leg was lost. On examination, the knee was found much swollen, especially on its inner side, and there was quite an amount of effused blood about the joint. The patella was drawn up by the quadriceps extensor and the bone could be outlined. By pressing the fingers over the lower part of the patella, they could be forced beneath the lower margin of the bone, showing that the ligament was torn off.

It was decided to open the joint and co-apt the parts by means of silver wire.

April 21. The cutaneous tissues over the joint were rendered aseptic by being shaved, and thoroughly scrubbed with turpentine, soap and water and afterwards with a 1-3000 solution of bichloride of mercury. The instruments were boiled and placed in a 1-40 solution of carbolic acid.

Operation.—The joint was freely opened by a transverse incision five inches long, extending across the front of the limb, on a line with the normal level of the lower margin of the patella. On entering the joint, the soft tissues were found considerably torn and the ligament and bone were separated about one and a-half inches. After thoroughly irrigating the parts with a 1-3000 bichloride solution and checking all hæmorrhage, the bone and ligament were brought together by a single suture of one-twelfth inch silver wire. The torn soft tissues were brought together by carbolized catgut and the external wound closed with silk. No drainage tube was used. The wound was dressed with iodoform, moist bichloride gauze and absorbent cotton, and the limb put on a posterior splint, with a foot piece, extending from the upper third of the thigh to the heel.

April 23rd. Temp. $100\frac{3}{5}$, pulse 100, very little pain, bowels regular, light diet given.

24th. Temp. again reached 100, but soon fell and has not reached the same elevation since. No pain, only a feeling of discomfort in knee. The patient's condition continued most favorable, and on the 29th the dressings were removed and some of the stitches taken out. The swelling and extravasated blood had nearly disappeared and there was no sign of tension or of pus.

31st. The rest of the stitches were removed and the wound was found entirely healed.

May 16th. There is no pain or discomfort in the part; the knee is stiff, but there is no sign of inflammation. It is, however, deemed necessary to allow union to become a little more firm before using the limb, so it is still kept on the posterior splint. The general health is excellent.

Selected Articles.

GENIUS A DEGENERATIVE EPILEPTOID PSYCHOSIS.[1]

From anatomico-biological analysis of the careers of sane geniuses and those neurotic or insane, of their geographical distribution, of the causes, often pathological in character, of their appearance, and of the evil inheritance discernible in their descendants, naturally arose the suspicion that genius has a degenerative origin. This suspicion, whose audacity at first repels, becomes more and more justified by the phenomena exhibited by genius. If the lives and works of the historically great morbid minds, be examined, it is found that they, as well as the men who have passed through the glorious parabola of genius without demonstrable mental taint, are distinguishable by many traits from ordinary men.

At the outset, it may be stated that the insane geniuses have no decided character. The complete character which does not bend with every breeze, distinguishes the mentally complete from them. Tasso [2] declaimed against courtiers as mendicants, yet became an obsequious courtier. Rousseau,[3] despite his seemingly exquisitive sensitiveness, abandoned his cherished mistress and his children, calumniated his friend, and was thrice an apostate, from Catholicism, from Protestantism, and, most significant of all, from Deism. Swift,[1] albeit an ecclesiastic, wrote the coarse chanson of "Strephon and Chloe," blackened the religion of which he was a dignitary,[2] was proud to the height of folly, yet was addicted to horseplay in taverns. Lenau, while devout to fanaticism,[3] in "Savaronola," was extremely sceptical in the "Albigenses." He recognized his own inconsistency and jested at it. Schopenhauer abhorred women and manifested a desire for the nirvana of the Buddhist, yet claimed he would live a century.

Genius exhibits extreme pride to a degree which often passes the limits of credibility. The simplest criticisms are regarded as the bitterest, most malicious persecution. Nature was leagued against Cardan, and Newton resented opposition as a mortal affront. Rosseau claimed that mankind, and even the elements, were leagued against him, and resorted to painful manœuvres seemingly to avoid contact with men. Swift,[4] humiliated the ministry and wrote haughtily to a duchess. Lenau,[5] who had inherited his mother's patrician pride, announced that he was king of Hungary. Wezel,[5] believed he had founded a bank and had issued bank notes, and finished by claiming divine honors. He published works by the "God Wezel."

Schopenhauer boasted that one of his disciples enshrined his portrait as that of a saint. Some geniuses are precocious. Tasso spoke at six months and knew Latin at seven years. Lenau as a child improvised sermons and was an admirable fife and violin player. Cardan at eight years heard from an apparition prediction of his future genius. Ampère at thirteen was a mathematician. Pascal at ten devised an acoustic theory from hearing a gong; at fifteen he composed his "Treatise on Conic Sections." Haller preached at four, and at five was a student of books.

Many geniuses are addicted to alcoholic and narcotic abuse. Haller[6] dosed himself with opium. Rousseau swilled coffee. Tasso[7] was a notorious drunkard, as were Kleist, Gerard de Nerval, Musset, Murget, Mailath Praga, Lorani, and the Chinese poet, Li-To-Kai, who was killed by excess in alcohol whence he drew his inspiration. Lenau[8] latterly abused wine, tobacco and coffee, and Baudelaire,[6] tobacco, wine and opium. Car-

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[1] Translated, with comments, by James G. Kiernan, from Lombroso's "Men of Genius."

[2] He was a periodical lunatic.

[3] He was a hebephreniac, whose misoneism originated in a desire for notoriety combined with suspicional delusions.

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[1] Swift was in these particulars on a level with most Anglican clergymen of the eighteenth century.

[2] He sprang from a family of imbeciles, was gloomy, alternating, with brief exaltation, and defended pæderasty.

[3] Lombroso contradicts this later on.

[4] Ratted to a Tory because of lack of patronage by the Whigs, like the clerical politicians most of the upper Anglican clergymen then were.

[5] Paranoiacs both.

[6] Suffered from renal calculi, whence opium.

[7] Antecedent to his cyclothymia only.

[8] Alcoholism due to praise or to genius, not *vice versa*.

dan[1] was an inebriate. Swift was a patron of taverns. Poe,[2] Southey[3] and Hoffman[4] were dipsomaniacs.

Most geniuses present reproductive anomalies. Tasso[5] indulged in youth in sexual excess, but was chaste after thirty-eight. Pascal,[6] excessively sensual in early life, later feared even the maternal kiss. Rousseau[7] was hypospadiac, and like Baudelaire,[7] had a sexual perversion. Newton[8] and Charles XII.[8] never sacrificed to aphrodite. Lenau[7] wrote, "I am unsuited for marriage." In lieu of the solitude of the study, the genius is impelled to wander continuously. Lenau wandered even to America, and thence over Europe. He said: "There is an absolute necessity for me to change climate to refresh my blood. Tasso[9] wandered from Terran to Urbino, Bergamo, Rome, Naples, Turin and Paris. Poe[9] made the *Review* editors despair by his wanderings between Baltimore, Richmond, New York and Philadelphia. Rousseau[10] claimed that more than three days' sojourn in one place was unendurable, whence his wanderings, as well as those of Cardan[10] and Cellini,[11] Gerard de Nerval[12] had nomadic tendencies, which grew with age. His departures resembled absconding.

The same errabund tendencies are manifested in their changes of career. Swift[13] wrote, beside satires, on Irish manufacturers, theology, politics and history. Cardan[14] was at once theologian, *litterateur*, mathematician and physician. Rousseau[15] was at once artist, botanist, musician, charlatan, philosopher and poet. Hoffmann[16] was a lawyer, caricaturist, poet, musician and dramatist. Tasso,[17] as later Golgol, tried all varieties of poetry, history and didactic writing. Ampère[18] in youth was a mechanician and musician, and later at once linguist, naturalist, physician and psychologist. Newton[19] and Pascal[19] during periods of aberration abandoned physics for theology. Haller[20] wrote on poetry, theology, medicine, physiology, botany, and even studied mathematics under Bernouilli. Lenau[20] studied law, agriculture, theology and medicine. Walt Whitman[1] was a printer, school teacher, soldier, wood-cutter, and even (strangely enough for a poet) an office-holder.[2] Poe[3] studied medicine, physics, zoology and mathematics.

Philomneste has pointed out in this connection that of forty-five insane authors, fifteen occupied themselves with poetry, thirteen with theology, five with prophecy, three with autobiography, two with psychiatry and two with politics. Among paranoiacs the tendency is toward theology, science and psychology. These energetic, terrible thinkers, are true pioneers of science; they leap in advance as a forlorn hope, attack with avidity the greatest difficulties on which can be spent their morbid energies. They seize upon the strangest relations of things, the newest and most striking points. In this they recall the originalities pushed to absurdity, of insane hospital poets and artists. Ampère sought after what Arago calls the abysses of mathematics —the problems of mathematics. Rousseau, in his "Devin de Village," attempted the "music of the future,"[4] as did later, Schumann, another lunatic of genius. Swift was accustomed to say he felt perfectly at ease when dealing with difficult subjects foreign to his own occupation. His style in his essay on "Servants" is not that of a politician, a preacher, but that of a flunky. His "Confession of a Thief" induced the accomplices of the supposed confessor to deliver themselves to justice.[5] In his predictions as "Bickerstaff, Astrologer," he so disguised himself as a Catholic in predicting the downfall of Rome that the Inquisition burnt the book.[6]

Walt Whitman is the creator of a poetry without rhyme or rhythm, vaunted by the Anglo-Saxons as the poetry of the future, which is certainly not destitute of strange, wild originality.

Bauldelaire, an admirer of Poe, writes that:

> The compositions of Poe seem created to prove how the weird may enter into the elements of the beautiful.

He collects them under the title of "Arabesques and Grotesques,"[7] because they exclude the human, and his literature was extra-human. This recalls the predilection of insane artists for arabesques, but arabesques humanized.[8] Bauldelaire, in his turn created poems in prose. He exalts the artificial element in the beautiful and discovers poetic

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[1] From his cardiac syncope.

[2] Periodial dipsomaniac.

[3] I can find no authority for this. My "Life of Southey" does not mention it.

[4] A congenital victim of locomotor ataxia. Sir Walter Scott denies dipsomania.

[5] Chastity of impotence.

[6] Under theological teaching, *vide* trial of Rebecca (in "Invanhoe"), a sexual, passionate, religious man, flees from all possible tempt-tion.

[7] Early masturbatory excess.

[8] Mental preoccupation inhibits sexual passion.

[9] Periodical furor and necessity.

[10] Necessity and suspicional delusions.

[11] Monetary and criminal causes.

[12] Monetary causes of the Parisian student type.

[13] As a politician necessarily became a pampleteer.

[14] University course of the time required this.

[15] "Pot-boiling" required these changes.

[16] Many cultivated Germans are so to-day.

[17] "Pot-boiling," so did Dryden.

[18] So are, even in this day of specialization, hundreds of others.

[19] Theology was a study of the time.

[20] The studies of a University course of the time.

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[1] Whitman's career was normal for an American.

[2] How about Chaucer, Spenser, Addison, Fielding, Johnson, Lowell, Stedmann, Boker, Halleck? Not to speak of Charles Lamb, Washington Irving and Hawthorne. These show the absurdity of calling clerical pursuits and office-holding strange procedures for Anglo-Saxon *literati*. See Macaulay's "Essays' and "History" for reasons why *literati* at times assume such prominence even in Latin countries.

[3] So are, even in this day of specialization, hundreds of others.

[4] Why not cite Wagner, another sexual pervert?

[5] An exploded literary fable due to one of Swift's deceptions.

[6] This cremation was not caused by Swift's style but his topic.

[7] "Tales of the Arabesque and Grotesque."

[8] This is a strangely forced association. The insane humanize arabesque but Poe describes them, as a sane mind would, as abnormal.

associations even in olfaction.[1] He declares that music recalls to him gold and scarlet, and speaks of the perfumes of children's flesh or of the dawn.[1]

These morbid geniuses have a style proper to them, at once passionate and glowing with color, which distinguishes them from other writers perhaps because they seem unable to compose unless under mania-like impulses. Often they claim to be unable to compose, or even to think, unless at periods of inspiration.

Tasso[2] writes, in one of his letters:

> I toil and am unfortunate in everything, even in composition. My ideas are embarrassed—slow to arise and slower to develop, and I cannot express them except in moments of fervor.

Rousseau avows[3] the animated and eloquent exordiums of Cardan frequently contrast markedly with the rest of his monotonous works and show how he differed at different times in his composition. Haller, himself an excellent poet, said that all the poetic art consisted in being obscure.[3] Pascal began thirteen times his "Eighteenth Provincial Letter."[4] Something analogous in style and nature led Swift and Rousseau to admire Tasso, Haller to admire Swift, and Baudelaire to admire Poe and Hoffman. Almost all great men are painfully tormented by religious[5] doubt which awakens their minds and which they combat as a crime, their consciences alarmed and their hearts sick. Tasso was tormented by a fear of being a heretic. Ampère often said doubt was the worst torment of man. Haller wrote in his journal:

> God, grant me a drop of faith ! My thought believes Thee, but my heart refuses to. This is my crime.

Lenau repeated in his last years :

> Hourly, when my heart suffers, the idea of God is enfeebled within me.

Doubt, as all his critics admit, is the hero of his "Savaronola."

Insane geniuses are wrapped up in themselves and eternally babbling of their misfortunes, virtues and diseases. They finish at last by remarking even their defects. All men love to speak of themselves and the insane excel in this particular, but when genius is joined to insanity even this egotism is doubled. Then result those marvelous mixtures of passion and pain, monuments of phrenopathic poesy, permeated throughout with the grand unfortunate personality of the author. Cardan has left us his life, complete poems on his misfortunes, and the work "De Somnüs," devoted solely to his dreams and hallucinations. The poems of Whitman are but expressions in verse of his "ego."

> Little is the theme of the hymn ;
> But the greatest of all is myself.

Here he depicts a child who can scarcely see a cloud, a stone, a drunkard or other object without imagining itself thereinto transformed. This child is himself. Rousseau, in his "Confessions," his "Dialogues" and his "Reveries ;" Musset, in his "Confessions," and Hoffmann, in "Kreissler,"[1] confined themselves to the minute depiction of themselves and their mental morbidity. Poe, as has been well observed by Baudelaire, took for his themes the exceptional features of human life—the illusions, which appeared to him at first uncertain, then clear and convincing, the absurd which seized upon intelligence and governed with a frightful logic the hysteria which seized upon the will, the contradictions between nerves and mind going so far to express sorrow by laughter. Pascal, whose mental defect showed itself in an exaggerated humility—Pascal, who says that Christianity consisted in the abnegation of the "ego," left no autobiography, but has depicted his mental state in his "Amulette," and there is no doubt but that he refers to himself when he says,

> That extreme genius is closely akin to extreme folly ;
> That men are such fools that he would be a new species who was not ;
> That diseases alter mind and sense, and if the great are most affected the little are influenced proportionately ;
> That if the genius has his head higher than other men, his feet are lower . . . there is no great gap between them and other men or children or animals.

Haller[2] has detailed his religious delusions and avows often a change of thought in twenty-four hours, when he becomes

> Stunned, stupid, pursued by God and despised and neglected of men.

Swift, in his "Letter to a Very Young Lady," traces, day by day his life, and confesses his insanity in terms at once clear and concise :[3]

> Every human body exhales vapors which mount to the brain. If these be moderate in quantity, the man remains normal ; if they be excessive, they exalt him and change him into a philosopher, a politician, a religion-founder, in a word, into a lunatic. Hence, it is wrong to keep men shut up in Bedlam, and a commission appointed to examine them would doubtless find in this academy many imprisoned geniuses, which might produce admirable instruments for the several offices in a state, ecclesiastical, civil and military . . . Even I, the author of these momentous truths, am a person whose

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[1] As old as Solomon's Song.

[2] How much of this was due to the exhaustion of periodical insanity and masturbatory excess and in no way related to genius, Lombroso fails to point out.

[3] A special criticism rashly made general by Lombroso.

[4] Goldsmith frequently refined his style ; hence, thirteen recastings of an important letter was no evidence of difficult composition.

[5] Great men do not differ in this from others of their time. In a time of religious introspection doubt would result naturally. In a time of world-wide fluxions of religions it would also result as well as in the changes resulting from the advances of science. Lombroso here exhibits his bias to look upon the abnormality o one epoch as necessarily an abnormality always.

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[1] "Kreissler," as he himself says, is filled with strange conceptions, always at war with reality, becomes at last insane.

[2] Tagebuch. Wherein does this differ from conversion phenomena among Protestants, to which no morbid stigma can be applied.

[3] This passage is really distorted from one in the "Digression on Madness," of the "Tale of a Tub." Lombroso mistakes satire for autobiography. Psychology was dominant in the literature of the time.

> imaginations are hard-mouthed and exceedingly disposed to run away with his reason, upon which account my friends will never trust me alone without a solemn promise to vent my speculations in this and the like manner for the benefit of mankind.

Letzman, who later threw himself from a window, wrote the celebrated "Journal of a Melancholiac."

Mailath, after having depicted his own depression in "Le Suicide," killed himself with his sister, to whom this romance was dedicated. Tasso has repeatedly detailed his insanity. Long before the periodical mania became demonstrable, he had written:

> Although I cannot deny that I am not insane, I can hardly believe my insanity is caused by drink or lust, for I am better when I drink or indulge in coitus.

Dostoyewski introduces imbeciles, paranoiacs and epileptics in the "Idiot" and "Besi," and moral imbeciles in "Crime and Punishment."

Gerard de Nerval wrote "Aurelia," which has been called a canticle of febrile dreams, a mixture of poetry and delirium,

Barbora wrote "Les Detraqués." Burton[1] depicted his own delusions. Allix, although not a physician, wrote on insanity. Lenau, twelve years before succumbing to insanity, described its phenomena. All his poems depict with sadly vivid colors, tendencies to suicide and depression, as may be seen even from their titles, "Hypochondria," "Insanity," "Soul-Sick," "Violent Dreams," and "The Moon of a Melancholiac," Not even in the pages of Ortil can be found as vividly colored a passage descriptive of suicidal tendency as the following from "Soul-Sick."

> My heart is a deep wound, and dumb to my grave I bear it. My life breaks hour by hour. One alone can console me, on whose bosom can I sob myself into calm; and this one lies in the depths of the grave. Oh, my mother, rouse at my prayers. If thy love live in death; if thou canst watch over thy son's future . . . Let me leave life quick. I desire the death-night. Aid thy weary son to despoil himself of sorrow.

His "Violent Dreams" is a terribly vivid picture of the hallucinations which preceded or accompanied his first maniacal attack, and a careful reader can detect the incoherence and fragmentation of ideas and phrases of maniacal exaltation. Nathanael Lee, popularly known as the "mad poet," minutely depicted insane geniuses, as in his "Cæsar Borgia."

The principal mental defect of great minds is discernible in the totality of their works, in illogical deductions, in absurd contradictions and bizarre, weird fantasies. Socrates was insane, when despite the fact that he had closely approximated Judaic monotheism and Christian ethics, etc., he drew omens from sneezing and from the voices and tokens of his protecting genius.[2] Cardan, who had anticipated Newton in the discovery of gravitation, was insane, despite the fact that in his work, "De Subtilitate," he explains as hallucinatory, the strange symptoms of the "possessed," and the ecstacies of hermits, since he attributes to a genius, not only his inspiration, but the creaking of a table or the trembling of a pen. He is insane, since he claims several times to have been bewitched. His work, "On Dreams," is as demonstrable of insanity to an alienist as a pseudo-membrane is of disease to a pathologist. At the outset of this work, his observations are interesting and logically analytical of dream phenomena. He points out that greater physical pain in dreams produces less proportionate results, while slight pain acts with greater force than in the waking state; that fools and the insane dream much; that in dream, as in a theatre, a long series of events occupies but a short space of time, and finally (an observation in which there is considerable truth), that men dream totally in conformity to, or totally in opposition to, their usual habits. Soon after such striking evidence of genius, appears most obsequious obedience to vulgar credulity, detailing according to what more or less insignificant incident of a dream could be determined a more or less distant future. He composed, with most sincere faith, a dictionary of fortune, identical in form with the cabalistic *brochures*. Each subject, each word is connected with a series of references so us to interpret each other; father signified author, husband, son, commander; foot meant house, foundation, arts and artisans.[1]

Newton,[2] who weighed worlds in the balance of his calculus, was certainly insane when he attempted to interpret the "Apocalypse," or the horns of Daniel; and he was still more so when he wrote to Bentley:

> By the law of attraction the elongated orbit of comets is explained, but God alone can explain the lateral difference of the almost circular planetary orbit.

A very singular argument, as has been said by Arago, which places God at the limits where science has not penetrated.[3] This very Newton, in his "Optics," declaims against those who in the "Aristotlean" fashion put occult qualities in things, thus limiting the researches of science,[4] and a century later, Laplace found the cause relegated by Newton to God, as undiscoverable by his calculus.

Ampère believed he had squared the circle.[5]

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[1] Not Buston, as Lombroso has it.

[2] These notions are still held by sane Christians—the result of early training.

[1] This was simply a "dream book" of our time, and Cardan had the dream-bias of the theology of his time.

[2] Evidence of theological bias, perchance, and resultant limitation, but to one trained in the popular theology of the time, and even of our time, such limitations were inevitable. Newton was a querulent paranoiac, but this was no evidence of it.

[3] Wherein does it differ from the placing of God in modern times at the limits of the knowable?

[4] There was as wide a psychological difference between these "Aristolean" views and Newton's, as between fetichism and monotheism.

[5] An error or a delusion.

Pascal, the first to study the laws of probablities, believed that the contact of a relic could cure lachrymal fistula.[1] Rousseau[2] made the savage the ideal type. He believed that everything naturally sweet to sight and palate must be harmless. His life was a tissue of contradictions. He eulogised the rural life and lived in city streets. He wrote a treatise on education and put his children in a foundling home. He was sceptical about religion, yet stoned a tree to determine the future.[3] He deposited his letters to God[4] on church altars as if God dwelt there only. Baudelaire compared the sublime in the artificial to a beautiful woman swathed in straw. He depicted in a moment of insane inspiration, a continent of metal whence water and vegetation were banished. All was there rigid, polished, shining, without heat or sun. In the midst of the eternal silence, the blue immensity reflected in it as old mirrors in a basin of gold.[5] The Latin of the decadence was his ideal; it alone could render passion.[6] He adored cats to the extent of addressing poems to them. He made many incoherent and incomprehensible utterances. He said in his "Advice to Communists":

> Now, everything is common, even God who wishes to say these words.

Hayem defined Schopenhauer's philosophy as a dream intensely dreamt and spiritually realized.

Walt Whitman was certainly insane when he wrote, that to his eye, accuser and accused and judge and criminal were equal,[7] and when in one of his poems he declares homage to the virtue of one woman only, and she a courtesan, and when he proclaims:

> In me latitude stretches out, longitude elongates; in me are sea, space, volume, matter, Africa, Polynesia.[8]

And when to make comprehensive his materialism he claims that soul is not only in the arms, nose, chin, hair, but even in the genitalia.[9]

Lenau, reversing all poets, in his "Moon of a Melancholiac," sees in the moon, cold, airless, waterless, the cemetery of a planet,[10] which, with a thread of twisted silver enchains sleepers and drags them to death.[11] It is she whose finger guides the somnambulist and who counsels the robber.[1] Lenau, who said several times in his youth, that mysticism was an evidence of dementia, frequently fell into mysticism in his later poetry. There is no connection between any two chapters of the Koran, often even in a single surate the ideas are interrupted or associated in a most bizarrre manner. Morkos[2] says:

> As to Mahomet, the most diverse conclusions can be drawn. He cannot be denied a great superiority, but on the other hand, it is impossible not to recognize also the clearest evidences of imposture, transplendent ignorance and phenomenal audacity. These qualities and defects are reflected in the Koran, where shine high ideas of science and religion, where are taught the most sacred principles of justice and humanity. The impious and traitorous are thundered at with eloquent energy. But the finest conceptions are distortingly mingled with puns. They are often flung like pearls midst rubbish. Taken as whole, the Koran appears an illy-digested, unfinished work, in which is to be found neither continuity of any thought nor of any elementary art. Its chapters contain intertangled verses; disorder everywhere and throughout reigning pell-mell. In the same chapter, one subject suddenly passes into a totally different one. Historical facts are mingled with commands, without relation to them; menaces against the impious confusingly mix with testamentary laws; ritual, prescriptions, with fantasies on the origin of the universe; remembrances of wars, with judiciary cases. Anachronisms are enormous and frequent. Historical facts are fabulously travestied and paralogisms are repeated with strange ingenuity. In the midst of these are declarations against idolatry, menaces of eternal fire to the impious, promises to believers of an extremely sensual heaven, where the excretions themselves and the celestial repasts are exhaled in the form of ethereal fluid in odoriferous mask. These ideas are mixed with advice as to the necessity for charity, justice and prayer repeated hundreds of times and constituting the only links in this incoherently bizarre mixture.

There is much insanity manifest, says Addison, speaking of Swift, in his conceptions of the mathematician who taught the science by giving his pupils problems to swallow; in the economical distiller of excrement and in the philanthropical proposal to turn babies into food.

The style of alcoholic genius is a characteristic one. They have a tendency varying from eroticism to frigidity, to an inequality more bizarre than beautiful, thanks to a too much excited fantasy, to frequent imprecations, to brusque passages of black depression, to the most obscene gaiety and to a manifest tendency to depict insanity, alcoholism and lugubrious death scenes. Poe, says Baudelaire, loved to throw his figures against or to revel in the phosphorescence of decomposition or the perfumes of the tempest and the orgie. He threw himself into the grotesque for love of the grotesque and into the horrible for love of the horrible. Baudelaire, in his turn, described the effects of alcohol and opium. "They are days when my heart disappears, when pangs conquer me," sang poor Praga, whom alcohol killed, and who, in praising wine, blasphemed thus:

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[1] In full consonance with the belief of his time and of not a few persons in *ours*.

[2] He amplified notions which he derived from the orignal contract theory of Locke, who derived it from Hobbes, who took it from the Puritan, Anabaptist and Lollard school of politics.

[3] Or to settle his mind in a moment of indecision.

[4] Was this not done to secure greater notoriety and perusal?

[5] Certain conceptions anent results of the nebular hypothesis make this appear anything but bizarre.

[6] From it sprang the provencal, pre eminently the language of passion.

[7] Has Lombroso ever read Emerson's "Brahma," wherein the same philosophy is expressed?

[8] What is this but the Berkleyian philosophy, expressed popularly even in Italy by the proverb, "I dead, the world is dead."

[9] This is certainly only a poetic expression of the notions of Bichat.

[10] This is the scientific view of the moon.

[11] An expression of the popular notion of the effect of sleeping in the moon's rays.

[1] Old poetic and popular notions about the moon often expressed in poetry.

[2] See Carlyle however on this subject. It was badly edited.

Come, opprobrium of the sober!
Come, misleader of mankind;
Come, hell of the Eternal Father,
I shall descend there, glass in hand.

Then the drunken artist painted drinkers. Hoffmann's designs ended in caricatures; his tales in extravagances; his music in entanglements of sound. Murger admired women with green lips and yellow cheeks, evidently from a species of Daltonism.

Nearly all these great men, Cardan, Lenau, Tasso, Socrates and Pascal especially, attached great importance to their dreams, which were evidently more intense than those of normal men.

Several presented enormous but abnormal skulls, and, like imbeciles, have finished by grave cerebral changes. Pascal's cerebral substance was harder than normal, and there was suppuration of the left lobe (?).[1] Rousseau had ventricular dropsy. Byron and Foscolo had prematurely closed sutures. Schumann died of chronic meningitis and cerebral atrophy.

The psychoses[2] of geniuses are usually not single but multiple. To melancholia, Chopin, Comte, Tasso, Cardan and Schopenhauer joined the insanity of pride. To imperative conceptions, Baudelaire and Rousseau joined sexual perversion and alcoholism. Gerard de Nerval joined to erotic insanity, alcoholism and the insanity of pride. To morphinism and alcoholism Coleridge joined the insanity of doubt.

The most striking characteristic of the mental state of these great men is an extreme exaggeration of two opposite states of erethism and atony—inspiration and exhaustion, which is manifest in geniuses even the most sound mentally.

> A lazy mind, frightened at everything, a bilious temperament, readily suffering and sensible to any contradiction, it should seem could not be conjoined in one organism, yet for all they form the basis of mind,

Affirms Rousseau in his "Second Letter." In consequence of this, and after the manner of the ignorant who explain by external causes subjective alterations of the ego, they refer to a devil, genius or God, their inspirations. Tasso says of his "familiar spirit":

> It cannot be a devil for it does not inspire a horror of sacred things, but it is not of natural origin, since it creates in me ideas which I never had previously.

A "genius" inspired Cardan with his works (theology) and inspired Tartini with his "Sonata," and Mahomet with his "Koran." Van Helmont had a "genius" influence him in all the most important actions of his life. He once saw his own soul as a resplendent crystal. Blake retired to the seashore to converse with Moses, Homer, Virgil and Milton, whom he imagined he had known before. When asked what they were like, he replied that they were majestic, gray, yet shining, and taller than man. Socrates was advised in all his actions by a "genius," whom he valued more than ten thousand masters, and frequently announced to his friends his intention to follow its advice. The glowing, animated style of great writers, the vraisemblance with which they describe bizarre fantasies like the Laputan Academy and Tartarus, demonstrute that they see and touch with the certainty of hallucinations, what they describe, and inspiration is evoked similarly to insanity. It must be said for some geniuses like Luther, Mahomet, Savaronola, Molinos and Tae-ping, that this false interpretation of inspiration gives their teachings a tinge of truth which produces conviction and gives them power over the populace. When gaiety and inspiration turn to depression these great unfortunates misinterpret differently. They are poisoned like Cardan; condemned to eternal flames like Haller and Ampère; persecuted by enemies, like Newton, Swift, Barthez, Cardan and Rousseau—religious doubt in all, mounts uppermost as a crime, and becomes an active real origin for new misfortunes. These men are so different from the common stamp that they tinge any psychosis from which they may suffer, with special characters, thus constituting a new psychosis—the insanity of genius.[1]—*Alienist and Neurologist.*

SOME FORMS OF RHINITIS WHICH THE GENERAL PRACTITIONER SHOULD BE ABLE TO TREAT.

Of the three turbinated tissues, the two lower are the ones usually involved in catarrhal inflammation, and, as they are in direct relation to respiration, their diseases will receive our attention. The connective tissue and mucous membrane covering the two lower turbinated bones is very vascular, and constitutes a true erectile tissue. Turgescence of this tissue in catarrhal inflammation leads to obstruction, and frequent recurrent attacks of inflammation lead to permanent hypertrophy, and finally to hyperplasia. I am aware that many will deny that such a condition as we term hyperplasia ever exists, and recognize but one term, that of hypertrophy; but clinical experience certainly does not verify this hypothesis.

The mucous membrane in the respiratory portion of the nasal cavity is lined with columnar ciliated epithelium, and is well supplied with muciperous glands, which secrete a viscid mucus; and an abundance of serum is poured out sufficient to moisten inspired air. The Eustachian tube is lined with mucous membrane continuous with the membrane of the naso-pharynx. It is about one line in diameter and from one and a half to two inches in length, and affords communication between the naso-pharynx and the middle ear, by which an equal pressure of air is maintained on either side of the membrana tympani. The mucous membrane of the tube is of the ciliated variety, with the ciliary action towards the pharyngeal outlet, which facilitates the passage of the secretion of the middle ear and tube.

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[1] These are secondary unrelated pathological findings.

[2] This is wild generalization. These are not psychoses but mental states.

[1] In my article on this subject, published some years ago (*Alienist and Neurologist*, Vol. VIII.), I said:

"Genius is not a product of morbid mind. In the exceptional instances where the two co-exist the genius is evidence of a healthy, conservative element, struggling with the incubus of disease."

I see no reason because of Lombroso's sweeping generalizations to alter this opinion. His cited cases are certainly not well analyzed from either psychiatrical or psychological standpoints, nor is his study of the sociological aspects of literary history as profound as the subject demands.

At the Eustachian orifice is a hook-shaped scroll of cartilage, somewhat in the shape of the letter S, with the mucous surface in contact, so that the orifice is practically closed. This arrangement of cartilage acts as a valve and regulates the supply of air to the tympanum, and this is released by the action of the muscle that is inserted into the membrane and cartilage. In the act of swallowing, this muscle, the tensor palati, acts on the letter S scroll, unwinding it and thus admitting the supply of air. Any obstruction to the free action of the muscle, or any pressure upon the valve-like scroll of cartilage, prevents the free opening and ventilation. Any enlargement of the turbinated tissue may so crowd upon the pharyngeal glands as to obstruct the orifice or interfere with free muscular action. Likewise hypertrophy of the tonsils indirectly interferes with free muscular action, and may crowd upon the adenoid tissue and produce obstruction. Again, inflammation of the membrane of the naso-pharynx may extend along the tube, producing occlusion.

Lenox Browne states that "for perfect hearing it is essential that there should be free ventilation of the tympanum through the Eustachian tube, and that the mouth of the canal should be freely opened, by muscular action, at certain times. All conditions which tend to narrow the lumen by swelling of the mucous membrane, or which hampers the action of the muscles, will prevent the equilibration of intra-tympanic pressure and cause retention of secretions, and thus inevitably lead to middle-ear disease."

We see to-day innumerable cases of incurable middle-ear disease largely the result of negligence or culpable ignorance on the part of the general practitioner. Almost all cases of inflammation of the middle ear are curable while in the acute stage. We sometimes yet meet people, and even physicians, who adhere to the insane idea that to check a discharge from the ear would force it or in some way drive it to the brain.

We should make it an invariable rule, that should govern us in every case of inflammation of the middle ear, to thoroughly examine the nasal cavity and tonsils. We will almost always find the source of the trouble in one or both of these organs. I would here state parenthetically that the custom of some of our medical colleges in making a professorship of diseases of the eye and ear seems somewhat ambiguous. I fail to see anything in the pathology of the eye that would lead one into contact with middle-ear disease. Practically, disease of the ear belongs to the subject of nose and throat disease.

Let us study some of the diseases of the nasal cavity which we more frequently meet with and should be prepared to treat. On rhinoscopic examination we may find hyperæmia, capillary congestion, hypertrophy, an increase in bulk of preëxisting normal tissue and hyperplasia, an increase or formation of new tissue elements. Certainly there are many other abnormal conditions to be met with and that accompany the above, such as extreme deflection of the septum, polypus, warty growths, etc.

Of the three mentioned conditions, hyperæmia, hypertrophy and hyperplasia, which we as general practitioners have mostly to deal with, especially is hypertrophy often met with.

It is of prime importance to be able to recognize each condition of the nasal cavity, as upon correct diagnosis depends our ultimate success in treatment.

A physician is seldom consulted in a case of hyperplasia, unless the patient is also suffering with a complication of middle-ear disease, and then, too often, we fail to take sufficient notice of the "cold in the head," which is the exciting cause. The mucous membrane is of a bright red appearance and highly congested. It easily bleeds upon irritation, or if roughly touched with the probe; the secretions are profuse and watery. Usually this passes off without leaving any permanent injury, but repeated attacks finally set up a hypertrophic enlargement. This may be averted by prompt and judicious treatment.

When hypertrophy exists we find increase in bulk as well as increase in functional activity. The thick, tenacious mucus is poured out in large quantity; often it is retained within the folds of swollen tissue and becomes inspissated, from a loss of its watery constituents, and pressure against the tissue causes destruction by strangulation, or may set up various reflex irritations. The mucous membrane is of a less violet appearance than we see in hyperæmia, and does not bleed so readily; it is indented by pressure with the probe, but quickly regains its usual turgescence. It is speedily reduced by an application of cocaine, but returns after the effects of the anæsthetic pass off. The free surface is often covered with thick viscid mucus, or this may be dry and irritating.

In hyperplasia we find a dense, resistant tissue, presenting a pale red or gray appearance, which lacks the smooth surface of the hypertrophy. It is not easily indented by pressure with the probe, and regains its regular appearance slowly. It has somewhat the appearance and consistency of fibroid tissue.

These three varieties gradually merge from one to the other, and often we find hypertrophy and hyperplasia in different portions of the tissue at the same time.

Middle-ear disease may result from these conditions of the turbinated tissue—by spreading of the inflammatory process to the membrane of the Eustachian tube, indirectly by pressure, interfering with free muscular action, preventing aëration of the tympanic cavity and by preventing the escape of normal secretions.

Another cause is the entrance of liquids into the Eustachian tube by the too prevalent use of the nasal douche and the habit of some of drawing liquids through the anterior nares. One of the most alarming cases of inflammation of the middle ear I have seen was from this cause.

Pressure of enlarged tonsils will often cause middle-ear disease, but, as a rule, we find it associated with catarrhal disease of the nares.

Besides the complication of middle-ear disease, it may be pertinent to refer to other symptoms of a reflex character, such as asthma, hay-asthma, cough and various forms of cephalalgia, but of which the scope of this paper will only permit a passing notice. Through an intimate sympathy between the nasal mucous membrane and the bronchial membrane, exerted by the vaso-motor system, Bosworth has clearly shown how an asthmatic attack, as well as hay-asthma, is excited by plethora and other irritations of the nasal membrane. Various forms of so-called neurasthenia have been traced by Daly to intra-nasal disease.

Considering the normal functions of the nose, to warm, moisten and filter inspired air, stenosis from any cause is liable to produce various symptoms. The infinitesimal microbe floating in the air may enter the air-passages unimpeded, through the open mouth, and find a lodgement in the lung-tissue; cold air coming in contact with the bronchial mucous membrane may light up an acute inflammation. And, accepting the theory that tonsillitis is caused by absorption of poisonous and noxious elements from liquids and inspired air, we trace the exciting cause from absorption of the fetid discharge passing through the posterior nares and over the olivary glands, and may be from air inhaled through the open mouth. I have observed that mouth-breathers are liable to frequent attacks of quinsy. I wish it understood, however, that I am making no arugument against Dr. Browne's theory of the rheumatic origin of quinsy.

The question of paramount interest to us is, can these various forms of diseased turbinated tissue be cured, and what resources have we at our command? Nothing should be done empirically. This indiscriminate use of douches, sprays and swabbing, as well as the popular use of salt-water drawn through the anterior nares, has done untold harm.

When we resort to treatment it should be done scientifically or not at all. The requisite is a forehead mirror, or reflector, and a bright light, accompanied, of course, with the proper nasal speculi and rhinoscopic mirror. Without these we should not attempt to treat nasal disease; it is working in the dark, and our results will be ignoble failures; without accurate diagnosis it is impossible to institute accurate treatment.

If a case of hyperæmia is seen at the commencement of the attack, our object should be to reduce the congestion and prepare the system to resist the sudden climatic changes. Constitutional dyscrasia should be corrected and habits and occupation looked after. A brisk saline cathartic should be followed by the administration of aconite in small and frequently repeated doses until the system is brought under the effects of the drug. A study of the physiological effects of aconite will satisfy one of its utility in acute congestion and inflammation of the mucous membrane. I am in the habit of combining with it ipecac to the extent of producing diaphoresis, and to facilitate this it is well to order a hot foot bath and put the patient to bed. Local applications are of great good, and for this purpose perhaps antipyrine, used in the spray in solution, is the best. Prof. Hinkle, who first recommended it for this purpose, says: "The first local effect of a spray (he recommends a 4 per cent. solution), is a pungent, burning sensation in the nose, at times with reflex pain in the eyes or temple, passing off in a few seconds. This is usually followed by retraction of the turbinated tissue, somewhat more slowly than with cocaine. The mucous membrane is not blanched as with the latter, and no perceptible anæsthesia occurs; however, there appears to be a local sedative action." Dr. Stovell, of Washington, later recommended cocaine, combined with antipyrine, and claims much better results. In no case should cocaine be used alone for any protracted time; its ultimate effects have been found to be injurious. Sponge bathing should be practised, by those who take cold easily, three or four times a week, or every morning, in order to fortify the system against sudden changes in the weather. It is best to use the water cold.

Numerous methods and devices have been tried for reducing hypertrophy, but I will confine myself to those which have been found most effectual. Some specialists pretend to prefer the galvano-cautery, but I think there are great objections to its use for this purpose. The eschar is much slower to heal than when other and milder escharotics are used; it destroys tissue by burning, which is liable to produce severe and dangerous inflammation, and a condition of atrophy is likely to occur if the cautery is carried too far or too long pursued. The mere destruction of tissue is not necessary. Bosworth expresses the correct theory when he says, in speaking of the use of chromic acid: "In making the application there should always be kept in mind the fact that we do not wish to destroy, but simply to create a small inelastic button, as it were, at the summit of the projecting portion of the hypertrophied tissue."

Dr. Beverly Robinson recommends the use of monochloracetic acid very highly, but the majority of authorities agree that chromic acid is safe, and when properly applied is to be preferred. Some have made the objection to the use of chromic acid, claiming it is hard to confine it to a small portion of tissue; that it liquifies and spreads over a greater surface than is desired. I admit this is a valid objection when used as Bosworth recommends in the New York *Medical Journal* of May 19, 1888, but when used with a proper applicator, such as we have to-day, no such objection can be raised The tissue should be thoroughly cleansed with a 50 per cent. solution of peroxide of hydrogen and reduced with a four per cent. solution of cocaine, then the most prominent portion touched with pure chromic acid. The surplus acid should be removed by pressing againstt he eschar a pledget of absorbent cotton. The eschar is inelastic, and prevents the tissue regaining its former turgescence. But one portion should be touched at a sitting. It is never well to try to accomplish too much at one time; make haste slowly is a good rule in using chromic acid.

I am aware that a prejudice exists against the use of this acid, by some, from a fear of its poisonous effects by absorption. Dr. Squibb says that "every molecule of chromic acid which destroys a molecule of organic tissue is itself destroyed and rendered inert by being reduced to an insoluble and inert oxide of chromium.".

The nose should be thoroughly and frequently cleansed, inspissated mucus retained within the folds of the hypertrophied tissue dissolved and purulent and dried mucus removed by the use of peroxide ot hydrogen. Goodwillie, who, I believe, was the first to call our attention to the use of peroxide for this, says: "When the peroxide meets the secretions an efferescence immediately takes place, and the sticky, pasty, fetid mucous is changed into foam. Its septic nature is entirely changed and it can then be blown or wiped from the nostrils."

Peroxide of hyrdrogen has no effect whatever upon healthy tissue, and may be taken internally with perfect impunity, but when it comes in contact with disorganized matter it has the property of rendering it aseptic by the liberation of its oxygen.

After thoroughly cleansing and rendering aseptic the nasal chamber and reducing hypertrophied tissue, I have lately used an inexpensive apparatus for inflating with dry air charged with medicated vapor. By its use medicated air can be carried to every portion of the nasal mucous membrane, as well as the various sinuses, Eustachian tube and middle ear. Briefly described it is as follows: an ordinary large mouth bottle, the size used for cinchonidia will answer, is fitted with perforated cork or rubber stopper; the stopper is perforated with two holes, and through these are passed one long and short glass tube. To the long tube, which passes to the bottom of the bottle, is attached a rubber bulb. A rubber hose, with nose piece, is fitted to the short tube. The bottle is filled, say one inch with the desired medicine. By pressing on the bulb air is forced through the liquid, passing out through the short tube and rubber hose into the nasal chamber. By compressing the opposite nostril and directing the patient to hold his breath, air may be compressed to any desired extent. If the patient is directed to swallow, air will pass up the Eustachian tube.

Any preparation to suit the judgment of the physician may be used. As an alterative to the mucous membrane I have used: tincture of iodine two parts, carbolic acid one part, iodide of potassa one part, and alcohol eight parts.

An excellent mixture is the one recommended by Dr. G. A. Evans, of Brooklyn: terebene, ol. pini silvestris, ol. eucalyptus. He recommends this combination for chronic catarrhal affections of the upper air passages and for chronic bronchitis.

Since commencing the use of the infiltrator I have not had the opportunity to give it sufficient trial to fully demonstrate its utility in the various stages of disease of the nasal cavity, but the principle, I believe, is the proper use for internasal medication. In a case of atrophic rhinitis the alterative preparation mentioned above is doing more good than any other method I ever have used. In a case of otoblenorrhœa I practised Politzer's inflation with air medicated with oil of eucalyptus and turpentine and am satisfied that it hastened the cure by opening the tube and by blowing the catarrhal secretion out through the perforated drumhead, and at the same time carrying medicated air to the inflamed parts.

I have also used it in two cases of collapsed tube, resulting from catarrhal inflation, with good results. It might be claimed that the ordinary Politzer inflation will result in improving the hearing in collapsed tube, but I am of the impression that if the air is medicated we may be able to restore the mucous membrane to its normal condition.

Hyperplasia may be reduced by destruction of the tissue by repeated applications of chromic acid, but the process is too slow. The usual method is the use of the galvanic cautery, cold wire snare and the knife. Unless one is an expert in the use of the cautery, I would advise the use of the snare or knife. This tissue has a very poor supply of blood, and as a rule the hæmorrhage is not severe. Strict antiseptic methods must be used and the wound thoroughly and frequently disinfected.

The following case will illustrate the subject: the patient, while suffering with hyperæmia, attempted to relieve the stenosis by drawing salt water through the anterior nares, with the result of forcing it into the Eustachian tube. Acute inflammation of the middle ear followed with perforation of the drumhead, and a very profuse discharge following. There was complete loss of hearing in the affected ear, and at times dizziness. I relieved the nasal congestion with a solution of antipyrine 4 per cent. and cocaine 1 per cent., in atomizer, and kept the nasal chamber thoroughly cleansed with a 50 per cent. solution of peroxide of hydrogen. Following this I practised Politzer's inflation with air medicated with oil of eucalyptus and turpentine. At the same time I freed the external auditory canal of mucus and filled it with pure peroxide of hyrdogen, directing the patient to lie with the diseased ear up in order to allow the liquid to penetrate the perforated drumhead. As soon as the discharge lessened sufficiently to permit it, I packed the ear with dry boracic acid, repeating it as fast as the powder liquified and came out. The result was complete restoration of the drumhead. The patient's hearing is now normal.—J. P. Black, M. D., in *Cincinnati Lancet-Clinic.*

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TREATMENT OF BRONCHITIS.

Acute Bronchitis.—In the spring and autumn, and especially during epidemics like the recent visitation of influenza, cases of acute bronchitis are very common, and generally after sudden changes in the weather patients from different parts of the city come complaining of about the same symptoms, which seem to have appeared about the same time and evidently due to the same cause. Such cases usually recover under the use of some simple expectorant mixture. A favorite one with me has been the following:—

℞.—Ammon. muriat., ... ʒ ss.
Mist glycyrrhiz. comp., . . ℥ iv.—M.

Sig.—Take a dessertspoonful every three or four hours.

The dose is smaller in the extremes of life, and in severe coughs it is given every three hours, or even more frequently. This has become a very successful remedy in the large majority of cases of acute bronchitis of short duration and slight physical signs, and, in fact, all lung coughs seem to be improved by it. In a few cases it causes constipation, and then something else must be substituted, as some of the syrups, etc.

Scientific pharmacy has improved so markedly the preparation of drugs, that nauseous and bad-tasting mixtures are rarely prescribed by the physician, who is anxious to please the patient and make a reputation. Instead of liquid medicines, small capsules and tablet triturates have been found very convenient. Tablets of the muriate of ammonia and the compound licorice mixture are very efficient. When the secretions are with difficulty brought up, the use of senega is advised. The syrups are usually so sweet that in adult practice I often prescribe the fluid extracts, using mucilage of acacia or glycerin instead of water. Of course, in a dispensary practice, inhalations and external applications may be ordered, but they are rarely carried out. In private practice a case of bronchitis usually does better in a room in which there is moisture, as steam from a kettle. Besides the internal medication, counter-irritation with Stokes' liniment, mustard, iodine, poultices, etc., form an important part of the treatment, and where there is a laryngitis with the bronchitis, inhalations of the compound tincture of benzoin, or oil of turpentine, poured on steaming water give great relief.

When the secretions are abundant and not easily coughed up, I find turpentine in emulsion an excellent remedy, not so pleasant, perhaps, as terebene. or terpine hydrate, but rarely failing to do good in properly selected cases. The formula, with occasional modifications to suit particular cases, is:—

℞.—Ol. terebinthin, ... ʒ ij. to ʒ iij.
Mucil. acaciæ, ... q. s.
Aq. cinnamomi, . . . ℥ j.
Aquæ, q. s. ad., ... ℥ vj.—M.

Sig.—A tablespoonful in a little water every four hours.

Ofttimes the cough is of such an irritating character that these ordinary expectorant mixtures avail little; then recourse must be made to a narcotic in some form. Morphine, of course, is a powerful remedy, but it has serious objections, not the least of which is the tendency to form the habit. Codeine, a very useful alkaloid of opium, has the advantage of not constipating as much as morphine, and the codeine habit is not apt to be formed, as patients rarely recognize it as belonging to the opium family. This, united with the wild cherry bark in some form, will stop an irritating cough, or, at least, prevent those frequent spasms of coughing. The virtues of the wild cherry bark depend on the hydrocyanic acid in it, which acts on the pneumogastric nerve. A good combination is:—

℞.—Codeinæ sulphat., . . . gr. viij.
Syr. prun. virginian., . . ℥ ij.—M.

Sig.—A teaspoonful in a little water three or four times a day, and at bedtime if necessary.

Of course, where the secretions are abundant, such narcotics do harm, but in the dry, irritating cough of nervous origin—a cough that prevents sleep—such a prescription is necessary.

Capillary Bronchitis in the adult is a very discouraging disease to treat, and too often proves fatal. The diagnosis is not always easy. It has been mistaken for pneumonia and pleurisy. The intense anxiety and dyspnœa of the patient is very startling to the nurse. The most important step is to keep the room filled with steam from a kettle, and use frequent inhalations of benzoin or turpentine. The great difficulty is to dislodge the tenacious mucus from the lungs. Expectorants do little and stimulants do much. In fact, in this disease you must pin your faith to constant stimulation and nourishment. We must also sacrifice elegant pharmacy and give nauseating remedies. Nauseating expectorants cause vomiting, which removes the bronchial secretion. The external use of mustard, Stokes' liniment, and large poultices is of the utmost importance. Even after the use of all these means, the patient, apparently strong at the beginning, will succumb to the disease.

Chronic Bronchitis, both alone and combined with *asthma*, can never be cured. Such cases return for treatment quite frequently, and it is only by palliation of the more acute symptoms that the patient can be kept in comfort. Spasmodic asthma is another disease that requires continual watching. In this class of chronic and incurable troubles I find the iodide of potassium an unpleasant but potent remedy. An attack of asthma often does well under the following:—

℞.—Potass. iodid., ... gr. lxxx.
Potass. bromid., ... ʒ iij.
Aquæ, ... ℥ iv.—M.

Sig.—A dessertspoonful in a little water three or four times a day.

When the disease is a chronic bronchitis, whether with or without emphysema, I give the iodide of potassium in the following mixture:—

℞.—Ammon. muriat., ... ℥ ss.
Mist. glychrrhiz. comp., . . ℥ iv.
M. et adde.,
Potass. iodid., ... gr. lxxx. M.

Sig.—A dessertspoonful in a little water three or four times a day, after meals.

This is an extremely disagreeable mixture, but patients will generally put up with it for the good it does them. The results with the nitrite of sodium, as suggested by Dr. Fraser, for use in chronic bronchitis, with and without emphysema, were not satisfactory. In some cases good was done, but in most cases not. In treating these chronic diseases the value of tonics should never be lost sight of. Fowler's solution of arsenic is an excellent remedy in these cases, as also is the occasional use of iron. It should never be forgotten in these cases to keep the portal system relieved of congestion by moving the bowels freely.—W. B. Canfield, in *Coll. and Clin. Record.*

SOME PEDIATRICAL DON'TS.

Don't fail, when called to a case, to acquire as complete a history of the illness from the nurse or mother as is possible before proceeding to an examination of the child.

Don't fall into the habit of ascribing the mother's fears and anxieties to an hysterical tendency which it is your duty to ignore. Listen to her, and profit by her suggestions.

Don't be cross or cross-looking while in any sick-room, and especially in that of a child.

Don't indulge in any sudden or violent movements while examining infants. Undue fright will thus be avoided.

Don't percuss the anterior surface of the chest first. Always commence with the back.

Don't forget that the respiratory sounds, especially the inspiratory, are normally full and harsh in childhood. Hence the term "puerile" respiration.

Don't expect to find the consolidation of phthisis in one or the other apex as in the adult. Very frequently it is found in other portions of the lung.

Don't make a diagnosis of pulmonary cavity from the presence of the "cracked-pot sound" in children. This sound may be elicited in pleurisy and pneumonia as well.

Don't confound a pneumonia in its initial stage with a meningitis. The nervous manifestations of the former are quite pronounced, but the temperature chart will be the guide.

Don't take the temperature of a child in the axilla. The tissues here are usually very small and cannot sufficiently cover the bulb of the thermometer to secure accuracy of registration. The rectum is better.

Don't fail to examine into the condition of the *thoracic* viscera whenever the child complains violently of pain in its abdomen.

Don't forget that tubercular peritonitis in the child is very frequently unattended with any pain or tenderness.

Don't forget that tubercular disease of the peritoneum and mesenteric glands is a frequent occurrence in early childhood, and is usually indicated by great prominence of the abdomen.

Don't forget that the liver is relatively large in young children, and prominent below the ribs, even when there is no diseased condition present.

Don't fall into the popular habit of ascribing all of the complaints of the early months of infancy to teething. Teething is a physiological, not a pathological process.

Don't diagnose the presence of intestinal parasites until one or more of the worms have been seen.

Don't fail to administer a purge of castor oil on the first appearance of greenish colored stools. Especially do this if the season be hot and sultry.

Don't fail to suspect the onset of some grave disorder—scarlatina, pneumonia or meningitis—whenever there is persistent vomiting.

Don't wean a child suddenly, unless such a course is made necessary by a sudden failure of the milk, or by sickness in the mother.

Don't permit a woman suffering from grave constitutional disease—tuberculosis or syphilis—to nurse her child.

Don't permit a woman who has become pregnant to continue nursing her infant.

Don't wean a child until after the twelfth month if possible to avoid doing so.

Don't permit a child to nurse from the breast after the eighteenth month.

Don't wean a child during the summer season, unless absolutely unavoidable.

Don't give a baby, which must be raised artificially, food preparations containing starch or its derivatives, glucose and dextrine.

Don't fail to thoroughly sterilize the milk used in the preparation of foods for infants.

Don't fail to enforce a general rule for the feeding intervals. All danger from over or under-feeding will thus be avoided.

Don't permit the bottle, which should be very simple in its form, to become in the slightest degree unclean. Fermentation with its disastrous effects may thus be avoided.

Don't permit the baby to sleep with the nipple in its mouth.

Don't permit the milk to stand in the bottle. Throw what remains away after each feeding.

Don't fail to thoroughly scald the nipple, tube, and bottle after each feeding, and keep them in a solution of soda until the next using.

Don't give the baby the bottle to soothe the crying or fretfulness of temper. Such a proceeding is always harmful.

Don't fail to inquire thoroughly into the physisical and moral qualifications of the wet-nurse, should one be required.

Don't prescribe a drug when a little attention to the diet or hygiene will do better.

Don't forget that infants are liable to take cold easily, owing to the relative feebleness of the heart and circulation. Proper wraps should therefore be provided, and ventilation secured without exposure.

Don't be alarmed at the great rapidity of the pulse. Any undue excitement or prolonged crying, or any slight febrile excitation will give rise to a pulse out of all proportion to the gravity of the general condition. A rapid pulse during sleep, however, is of more grave significance.

Don't forget that heart stimulants are well borne in children in relatively large doses.

Don't limit the supply of fresh air and sunlight. A child can never get too much of these, even when sick. They should be so arranged, however, as to avoid eye-strain and chilling.

Don't expose the eyes of a new-born infant to a sudden or very bright light.

Don't permit a child to assume a sitting posture at an early age. Spinal curvature may thus be produced, especially if the infant be rachitic.

Don't anticipate the natural efforts at locomotion, otherwise unsightly curving of the limbs may result, necessitating later operative procedures.

Don't designate the symptoms of rheumatism by the popular term "growing pains." Serious heart disease in its early stage may thus be overlooked.

Don't mistake cerebro spinal meningitis for rheumatism. The diagnosis is often a difficult one.

Don't forget that tubercular meningitis is usually preceded for weeks or months by a gradual but progressive loss of flesh.

Don't mistake the relatively greater development of the head in proportion to the shoulders for a commencing hydrocephalus. It is the natural condition in the early weeks of infancy.

Don't mistake the normal breath sounds which are heard in auscultating the fontanelles for the bruit which may be indicative of commencing disease, hydrocephalus or rickets.

Don't forget that inability to speak, inability to walk, and other evidences of backwardness in children may be due to some form of mental disorder, either idiocy or imbecility.

Don't forget that the pain of commencing coxalgia is first complained of usually in the knee of the affected side.

Don't forget to examine the urine frequently throughout the stadium of scarlet fever. Nephritis is a common sequel to this disease, and its onset must be watched with jealous care.

Don't vaccinate an infant while it is suffering from eczema or tooth rash.

Don't fail to keep the baby's chest protected by a rubber bib during dentition. Serious lung trouble may be avoided by this precaution.

Don't order large amounts of a medicine. One or two ounces of the preparation will generally suffice.

Don't fail to humor the whims of the mother when no harm can result to the child from so doing.

Don't fail to commence training an infant from the day of its birth. Much can be done in these early days toward regulating the habits of nursing, etc.

Don't forget that drugs administered to the mother will have a corresponding effect upon her nursing child.

Don't fail to remember that success in pediatrical practice necessarily depends largely upon acuteness of observation.—Dr. W. A. Newman Dorland, in *Medical Progress.*

THE LOCAL TREATMENT OF DYSENTERY.

Dr. H. C. Wood contributes the following article to the August number of the *University Medical Magazine:*

"There seems to me to be in modern medical thought a very strong tendency to consider disease as constitutional rather than local. I do not doubt but that there are one or more forms of dysentery dependent upon the presence of poisons in the blood, but I feel very confident that the dysentery, as we see it ordinarily in this climate, is essentially a local inflammation, independent of any blood poisoning. If this be true, the disease should be especially amenable to local treatment. It is true that the ordinary treatment, which seems not to be local, really owes much of its efficiency to a local influence. Thus, the purgative acts by a purely local depletion; the mercurial, or ipecac., by a local stimulation of the glands involved; whilst the bismuth spreads itself upon the mucous membranes and by its local action lessens inflammation. It seems to me, however, worth while to draw the attention of practitioners to the direct application of remedial agents in the affected parts.

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"Many years ago I published a series of cases of chronic dysentery demonstrating the extraordinary efficiency of forced enemata containing one half a drachm to a drachm of nitrate of silver dissolved in two or three quarts of water, and further experience has corroborated all that I said. Indeed, from time to time have appeared papers in the medical journals proposing the treatment as both novel and efficacious.

"In acute dysentery, involving the colon high up, I have found large enemata, containing two or three drachms of subnitrate of bismuth, much more efficient than the exhibition of bismuth by the mouth. When the symptoms are severe, this local treatment may often be preceded with advantage by washing out the colon with large quantities of cold water. I have never used injections of nitrate of silver in acute dysentery, although the effect of the local application of the nitrate in other inflammations of mucous membranes would justify trial of the remedy. I have seen, in one or two cases, large enemata of very hot water injected without affording relief, and believe that hot water enema are, in their ordinary results, not at all comparable with large injections of ice-cold water.

"When the lower part of the colon is affected, the local use of ice sometimes has an almost marvellous effect. I have, indeed, seen the whole aspect of a very severe and alarming case, in which the symptoms indicated that the colon was affected high up, changed in a single hour by the continuous use of *ice suppositories.* While it is not necessary to have the pieces of ice entirely regular in shape, care should be taken that no sharp edges are left. The suppositories should be rapidly used, one being put into the rectum every three to five minutes, so as to get, for at least half an hour to an hour, the effect of the continuous application of cold.

"When the tenesmus is very severe, iodoform suppositories are often much more efficient than opium in bringing reliei.

"A remedy which has been from time to time recommended very highly in dysentery, but has not, I think, been much used, is ergot; and when the passages contain large quantities of blood, or are nearly pure blood, the extract of ergot would seem to be indicated. I have never myself used ergot by the mouth in these cases, but have employed suppositories containing twelve grains of extract of ergot and four grains of iodoform, used every two hours until four or five suppositories had been taken with, seemingly, great advantage.

"I do not mean to advocate the local treatment of dysentery as a substitute for the use of mercurials, purgatives and ipecacuanha, etc., but as a very important adjuvant to the older forms of treatment. Nevertheless, in my experience, the effect of local remedies has been more prompt and decided than that of those given by the mouth; but in cases of any severity the attack upon the disease may be made from each end of the mucous tract." The article closes with two brief clinical histories.—*N. Y. Med. Jour.*

Gall Stones.—Professor Naunyn delivered an address on gall stones before the Medical Congress recently held at Wiesbaden (*Berliner Klin. Woch.*) He said the origin of gall stones was still a vexed question. According to some, they arise when the bile is overloaded with the materials that form them—cholesterin and bilirubin-calcium-carbonate (which may be called "bilirubin chalk"); according to others, from insolubility of substances owing to chemical alterations of the bile. But cholesterin exists as such, not in the bile only, but in the blood as well. Its amount in the bile is very constant, namely, 2½ per cent., and this amount is independent of the kind of diet and of the proportion of cholesterin in the blood—often far more than the bile can hold. Nutritive derangements have no influence on the amount in the bile. Again, the proportion of chalk in the bile is very constant. On the other hand, chemical alterations, as mentioned by Thudichum, which are supposed to lend to the precipitation of certain substances in the bile, have not been substantiated. Gall stones appear with a fair uniformity; there seems to be no preference for particular localities. As regards frequency, while even 5 or 6 per cent. (according to some, 10 or 12 per cent.) of all necropsies of young persons, reveal gall stones, their proportion amongst the aged is far higher. But gall stones in old people cause very few symptoms as a rule, and hence they are not diagnosed. Five times as many women are affected as men (Schroeder); they are rare before the 30th year, but after 60 years the proportion is 25 per cent. They are more frequent in women who have borne children. Hence it may be inferred that stasis in the excretion of bile cause the disease—for example, pregnancy, tight lacing, the costal respiration of women, atony in old people. Artificial thickening of bile (by evaporation) causes no lithic deposits, nor does precipitation. Gall stones appear to be due exclusively to a morbid condition of the epithelium of the bile ducts, and at first are soft, and usually have a central cavity filled with a grumous liquid. The "bilirubin chalk" and cholesterin are deposited later on, then form a shell like an egg-shell, after which the interior consolidates. The contained fluid is sometimes as clear as water. The cholesterin is partly deposited outside all, partly penetrates within. The consolidation is always a secondary process. Carbonate of lime may be deposited, in which case a stony hardness may result. The mucous membrane of the part affected is always diseased, and Meckel calls it "lithiatic catarrh, but a better term would be "desquamating angiocholitis." The stasis may also favor infection; a bacillus resembling Escherich's *bacterium coli communis* is very often found; such bacilli may permeate the whole stone. The disease may show itself as a regular typic, or an irregular atypic, cholelithiasis; the latter often leads to carcinoma, and its prognosis is therefore bad. As to treatment, no strong medicines or solvents can reach the site in sufficient strength. So-called chologogues are most recommended, but experience makes their benefit doubtful. A mixed diet is a better cholagogue than all drugs. The excretion of bile should be furthered by warm clothing. Salicylic acid is of no use here. The diet should be rigid; any excess exacerbates the catarrh. Carlsbad water does good by exciting peristaltic movement. Surgery is often the most effectual treatment; the gall bladder may be removed altogether in some cases. Icterus is often absent, and then the disease is diagnosed as gastric spasm.—*British Med. Journal.*

A NEW TREATMENT FOR EPILEPSY.—The combined use of the bromides with any organic agent capable of depressing the nerve centres, such as Calabar bean, picrotoxine, belladonna, etc., in the treatment of epilepsy, is proposed by V. Poulet (*Bull. Général de Thérap.*), based on the generally recognized fact that all organic agents found useful in the treatment of the malady in question act similarly on the capillary circulation.

It is worthy of note that Calabar bean, belladonna and picrotoxine, in therapeutic doses, all act like bromide of potassium upon the muscular system and upon the capillary circulation of the nerve centres, thus relieving congestion and preventing hyperæmia. The conjoined action of any of these organic substances and the potassium salt, according to the author, has given the best results in the treatment of epilepsy.

Five cases are detailed, occurring in individuals of from fifteen to sixty-five years of age. The combination of physostigma, or the sulphate of eserine, and the bromide of potassium, and of this and picrotoxine, gave the best results in two of the cases cited occurring in adolescent life, in a third, due apparently to the coming on of the meno-pause, and in a fourth case, observed in an old lady. In the fifth instance, in which the malady was attributed to the existence of organic cardiac disease, the best effects were produced by a combination of the potassium bromide and digitalis. In this case strophanthus was also used, but with little benefit.

With regard to the doses of the different remedies employed, and taking into consideration individual idiosyncrasies, from 75 to 90 grains of the potassium salt were given to women, and from 105 to 120 grains to men. Of the sulphate of eserine, picrotoxine and the sulphate of atropine, one-sixth of a grain each of the first two drugs and one-sixtieth of a grain of the last one were given. Half a fluid drachm of the tincture of Calabar bean, or twelve and a half grains of the powder, were employed instead of the eserine salt. The alkaloid atropine was replaced by half a fluid drachm of the tincture of belladonna or by eight and one-third grains of the powder of the root. In cardiac epilepsy, digitalis was employed in from twenty drops to half a fluid drachm of the tincture, or in four-grain doses of the powder. In order to avoid disturbances of the stomach, due to the action of the remedies used, these should be administered at the beginning or at the end of each meal.

In conclusion, the author believes that the bromides are the chief remedies to be used in the treatment of epilepsy, and that when patients become habituated to the action of the potassium salts their employment in combination with those of the organic substances mentioned is productive of the most gratifying results. It was likewise observed that these remedies seemed to prevent the frequent maniacal states following attacks of the *grand mal*, and also to stop the appearance of immediate accidents, such as hemiplegia, delirium, stupor and coma.—*University Med. Magazine.*

On the Therapeutic Value of Indian Hemp.—I have during the last few years been accustomed to prescribe Indian hemp in many conditions, and this drug seems to me to deserve a better repute than it has obtained. In one form of insanity, more common in women than in men, and brought on usually by mental worry, often owing to the illness of a near relative or a moral shock, the drug acts almost as a specific. In this affect the patient is depressed and apprehensive, she imagines that animals are after her or that someone wants to injure her. There is great mental confusion and mental loss, the patient is unable to carry on any conversation, and sometimes is unable to dress herself, the condition being one of acute dementia. I have notes of several such cases that have been cured by Indian hemp within a fortnight. I usually give 10-minim doses of the tincture thrice daily, combined with iron strychnine. I prescribe also complete rest and plenty of food. The Indian hemp is an essential factor in the treatment, for without it the rapid recovery does not ensue; it seems to remove the mental distress and the restlessness.

Indian hemp has proved very useful in my hands in the treatment of melancholia and mania. I have also found this drug of great value in the treatment of chorea when arsenic fails, as it frequently does. It may be combined with chloral with advantage in such cases. In migraine the drug is also of great value; a pill containing ¼ grain of the extract with or without a ¼ grain of phosphide of zinc will often immediately check an attack, and if the pill be given twice a day continuously the severity and frequency of the attacks are often much diminished. I have met with patients who have been incapacitated for work from the frequency of the attacks, and who have been enabled by the use of Indian hemp to resume their employment. This drug is also a valuable gastric sedative in cases of gastric ulcer and gastrodynia It may be combined with nitrate of silver, and it increases the efficacy of the latter. Its value is well known to asylum physicians, but it does not appear to have obtained the confidence of the profession generally. Indian hemp is also a very valuable hypnotic.—C. W. Suckling, M.D. (Lond.) M.R.C.P., in *British Med. Jour.*

Headache During Childhood.—(*Rev. Mens. des Mal. de l'Enf.*) Seven groups of headache may be classified:

1. Headache from rapid growth. It is usually frontal, is increased by exercise, and co-exists with pain in the joints, periostoses, and hypertrophy of the heart. Treatment: Muscular repose, tonics, liberal diet, phosphate of lime, malt beer.

2. Headache from intellectual activity. It occurs in intelligent and excitable children, who study too much, or in backward children, who acquire their lessons with difficulty. Treatment: For the first class of cases, cessation of intellectual work, physical exercise, but not so severe as to produce fatigue, lukewarm baths. In the second class of cases the work may be continued in moderation, plenty of exercise being enjoined.

3. Headache from digestive troubles. It occurs in children who eat too much or too fast, and occurs in one to three hours after eating. Treatment: Properly regulated hygiene and diet; by bitter tonics before eating, warm drinks after eating. Constipation should be overcome.

4. Headache of nervous origin. It occurs in children who are excited by their manner of living. It is premonitory of future neuropathies, epilepsy, and hysteria. Treatment: Baths, walking, massage, valerian, aconite, and antipyrin for the hysterical; belladonna and bromides for the epileptics. They should avoid taking cold.

5. Headache in children of gouty or rheumatic diathesis. It is sometimes accompanied by intense congestive phenomena, which simulate meningitis. There are manifestations of hereditary antecedents; there are neuralgias, arthralgias, myalgias; the urine contains phosphates, oxalates, and urates. Treatment: Moderate diet, exercise in the open air, vapor baths with friction, laxatives, alkalines, salicylate of soda in doses of from twenty-five to thirty centigrammes, and tincture of colchicum in ten to fifteen drop doses daily.

6. Headache from anæmia and poisoning. In the first case it is due to bad air and hygiene, in the second to malaria, carbonic oxide, to excessive medication, to uræmia. Treatment: It should vary with the cause.

7. Headache from injury to the sensory organs. There may be chronic conjunctivitis, or keratitis, or iritis, which should be treated locally, and also by the internal use of sulphate of quinine in large doses. Troubles of refraction, hypermetropia, and astigmatism must be treated with suitable glasses. There may be mucous polypi in the nose, or hypertrophies, which call for local treatment. There may be adenoid vegetations in the ears, otitis or foreign bodies in the auditory canal, which call for suitable treatment.—*Archives of Pediatrics.*

Treatment of Chronic Eczema by Creolin.—At the Royal Academy of Medicine in Ireland, Dr. Patteson read a note on the treatment of chronic eczema by creolin. He had been led to adopt its use from the well-known value of tarry preparations in certain forms of eczema and psoriasis, and from its cheapness, which rendered it suitable for out-patient practice. He briefly referred to two cases of pustular eczema of the scalp—one of eight and the other of three years' standing—in which marked improvement and cure followed its prolonged use. It was applied as a wash or lotion in the proportion of 1 drachm to 8 ounces of water. The value of such a powerful germicide in these cases seemed in favor of Nuna's contention as to the parasitic nature of eczema.

Dr. Walter Smith expressed his concurrence with Dr. Patteson's views as to the utility of creolin as a germicide and stimulant. Creolin, although devoid of ordinary phenol, is a mixture of phenolic compounds and other aromatic bodies, and possesses the advantage of ready miscibility with water, and of being unirritating.

Dr. Doyle said that he could corroborate Dr. Patteson's remarks as regards the curative effect of creolin in subacute cases of pustular eczema, having used it by means of wet packs frequently repeated.

Dr. R. Montgomery said that creolin is supposed to be naphthalene combined with carbolic acid and an alkali, but he was unable to obtain more accurate observation as to its chemical constitution.

The President congratulated the Academy on the additional remedy for chronic eczema which Dr. Patteson had brought under their notice. His communication, however, did more, and that was that it emphasized the importance of steady perseverance in the treatment for eczema which had been found temporarily useful. If any exception could be taken to the paper it was in the direction (1) that the treatment was used for but one variety of chronic eczema—viz., the pustular; and (2) that creolin was not the only remedy employed.—*Med. Press and Circular.*

ON TAKING FLUID WITH MEALS.—A great deal of misapprehension is often found to exist in the popular mind in regard to matters of eating and drinking; the cause of this to some extent is to be traced to old-time sayings, which have come down to us in the form of a concentrated infusion of somebody's opinion upon a subject of which he or she was wofully ignorant. One of these misapprehensions to which we may refer is as to the injuriousness of taking fluid with meals. One frequently hears it laid down as a maxim that "it is bad to drink with your meals, it dilutes the gastric juice." By way of explanation we may remark that "it implies that the fluid taken is harmful." Whence this sagacious postulate originally came we cannot tell; it has quite the ring about it of an inconsequent deduction formed by a person whose presumption of knowledge was only exceeded by a lamentable ignorance of the subject. Medical men often find much difficulty in dealing with these museum specimens of antiquated science, for even educated persons are disposed to cling to the absurdities of their youth. Upon this matter Mr. Hutchinson remarks in the last number of his "Archives:" "I observe with pleasure that the verdict of general experience and common sense has been confirmed by scientific experiment in the matter of taking fluid with meals. Dr. Tev. O. Stratievsky, of St. Petersburg, after elaborate trials, has found that fluids materially assist the assimilation of proteids, and announces the follow-conclusions, which to be hoped no future experiments will controvert—on the whole, the widely-spread custom of taking fluids during or just before one's meals, proves to be rational and fully justified on strict scientific grounds. To take fluids with the meals is almost as important an adjunct to digestion as is the mastication of solid food preparatory to swallowing it." It is obvious, however, that there is a limit to the amount of fluid one can swallow with impunity—not to speak of comfort—jusl as much with meals as at other time. It would be dangerous to create a general impression that fluid is good with food irrespective of quantity. It is, moreover, a well-ascertained clinical fact that an excess of cumprandial fluid does retard digestion in certain people, and give rise to discomfort in most. A little attention to one's sensations in such matters will far better fix the desirable limit than all the "data" in the world.—*Med. Press and Cir.*

TREATMENT OF VARIOUS TOXIC AMBLYOPIÆ.—1. *Alcoholic Amblyopia.*—Complete abstinence from alcoholic drinks. Aid nutrition by administration of tonics and healthy foods; calm cerebral excitement by a course of bromides. Locally, by instillation of eserine or of pilocarpine the existing mydriasis can be overcome. Recourse should be had to hypodermatic injections of strychnia, the galvanic battery, hydrotherapy and to ocular douches.

2. *Tobacco Amblyopia.*—Moderate use of tobacco. According to Sichel and Mackensie, the smoking of fifteen to twenty grams (about half an ounce) of tobacco per day is a toxic dose; never smoke but two-thirds of a cigar, as the last third is a reservoir for nicotine. The preceding is prophylaxis. If amblyopia exists, use of tobacco must be prohibited. Stimulate nutrition, give inhalations of nitrite of amyl, injections of strychnia, constant current of electricity and ocular douches.

3. *Saturnine Amblyopia.*—The treatment is that for saturnism: purgatives, sulphur baths, iodide of potassium in large doses, and tonic regime.

4. *Quinine Amblyopia.*—The elimination of the drug is facilitated by giving purgatives and diuretics; use also inhalations of nitrate of amyl, injections of strychnia and electricity.

5. *Amblyopia from Antipyrine.*—The author

cites numerous cases of amblyopia associated with ischæmia of the retina following the use of large doses (four to seven grams) of antipyrine taken through a period of several weeks. Discontinuence of the use of the drug restored vision at the end of about ten days.

6. *Amblyopia from the Fumes of Carbon Disulphide.*—The patient will have to abandon his occupation as one of the first requisites to recovery. The use of tonics, iron and quinine, a substantial diet, subcutaneous injections of strychnia, inhalations of nitrate of amyl, and galvanic electricity will all aid toward effecting a cure. As a means of prevention, prohibit the manufacture in rooms; ventilate perfectly; hermetically seal containers; observe great cleanliness on the part of workmen; they should change their clothes on leaving the factory.—*L'Union Médicale du Canada.*—*Cincinnati Lancet-Clinic.*

THE TREATMENT OF THE PYREXIA OF PHTHISIS.—Dr. C. T. Williams, senior physician to the Hospital for Consumption and Diseases of the Chest, Brompton (*Br. Med. Jour.*), concludes as follows on this subject:

1. The pyrexia due to tuberculization is best dealt with by derivative measures, such as counter-irritation, salines promoting secretion from other organs, and assisting expectoration.

2. That in the treatment of the pyrexia accompanying softening and excavation, measures which hasten these processes are found to be most successful, especially if combined with anti-periodics, such as quinine, salicin, or salicylate of sodium, to moderate the fever.

3. That the use of medicines solely directed to lowering the temperature of the body without promoting increase in the natural secretions is generally inadvisable.

4. That our object in the treatment of phthisical pyrexia should be, not the reduction at all hazards of the temperature, but its lowering to the limits compatible with the comfort and well-being of the patients, and for this end that much may be done, in addition to the discriminating use of medicines, by the simple means of frequent food combined with stimulants and rest in bed.

Dr. Williams has also found the cold bath an efficient means of reducing the temperature in this disease. In two cases which were thus treated the bath not only produced decided antipyresis, but also improvement in the appetite and strength, breathing and physical signs, the pyrexia gradually subsiding. Good results were also obtained from tepid sponging of the body and the use of an ice bag for a few hours each day, whenever the temperature rose above 100° F.—*Dietet. Gaz.*

CARDINAL POINTS IN BACTERIOLOGY.—The *Bacterological World* says:

The words germ, bacteria, microbe schizomycetes are used in our present literature almost as synonymous terms, but microbe seems preferable to germ or bacteria, and schizomycetes is a better scientific term than either.

That these are unicellular, and assimilate nourishment, seemingly by absorption in the media in which they live, but they must transform (alter) the foods found proper, and yet unfit in nature, for their use and appropriation.

Bacteria living on dead matter encounter no living resistance, while those feeding on living tissues, or fluids in living tissues, meet the living cells of the body and have to combat them.

The diastases secreted by the various beings, whether highly organized, or unicellular and microscropic, have something in common as to their respective objects, and their properties of transforming matter.

The *rôle* of microbes in the world is complex and necessary, though some are injurious. They act as scavengers, return to the air and water the organized elements abstracted daily by the vegetables of the globe, and indirectly by animals, and are indispensible to life.

The bacteria that invade living organisms which happen to be fit for their nourishment are in a sense parasites just as much as the tapeworm is.

Spontaneous generation of living organisms, no matter how little, is a fallacy.

PATHOLOGY OF GRIEF.—That severe mental distress or fright sometimes produces physical disease, and occasionally even death, is an admitted fact, although the way in which it acts has hitherto been but little studied. In order in some measure to supply the deficiency in our knowledge regarding this matter, Dr. G. Bassi has recently made a number of observations on animals which apparently died in consequence of capture. Birds, moles, and a dog which had succumbed to conditions believed by Dr. Bassi to resemble those known amongst human beings as acute nostalgia and a "broken heart," were examined post-mortem. Generally there was hyperæmia, sometimes associated with capillary hæmorrhages of the abdominal organs, more especially of the liver, also fatty and granular degeneration of their elements, and sometimes bile was found in the stomach with or without a catarrhal condition. The clinical symptoms were at first those of excitement, especially in the birds, these being followed by depression and persistent anorexia. The theory suggested by Dr. Bassi is that the nervous disturbance interferes with the due nutrition of the tissues in such a way as to give rise to the formation of toxic substances—probably ptomaines—which then set up an acute degeneration of the parenchymatous elements similar to that which occurs in consequence of the action of certain poisonous substances, such as phosphorous, or to that met with in some infectious diseases. In support of this view, he points out that Schule has found parenchymatous degeneration in the persons dead from acute delirium, and that Zenker found hæmorrhages in the pancreas in persons who had died suddenly; he refers also to some well known facts concerning negroes in a state of slavery, and to the occasional occurrence of jaundice after fright.—*Lancet.*

THE TREATMENT OF SPRAINS.—Dr. N. W. Cady, of Logansport, Ind., writes: "A recent number of the *Medical Record* promises fame to the man who gives an unfailing remedy for sprains. Here it is, in two words: A half hour's douching with water at a temperature of 120°F., and the fixation of the joint by a splint on the flexor side of the joint, or upon the extensor side, if that be more convenient. For example, in case of ankle sprain, after a half-hour's steady douching with hot water at 120°F., I prepare an anterior splint of ten to sixteen layers of mosquito-bar, which is thoroughly filled by immersion in wet plaster of Paris. This is trimmed by spreading it on a board and cutting to shape with a knife. The length may be from thirteen to sixteen inches, breath four to six inches. Where the splint passes over the instep the edges on each side are folded over to make the splint narrower and thicker. A layer of cotton is then spread over the face of the splint, and the splint is applied from the base of the toes to a point about half-way up the leg and carefully secured and moulded by a narrow roller bandage. While the plaster hardens hold the foot in whatever position is easiest to the patient. There is rarely any further complaint of pain if the splint fits neatly. This, with perfect rest, constitutes the whole treatment, which should continue at least a week, or until all extravasation is absorbed. Four teen years' experience and observation of results obtained by other methods satisfies me that it is the best and most rational treatment.—*New York Medical Record.*

THE TREATMENT OF FIBROID TUMORS OF THE WOMB BY THE INJECTION OF ERGOT INTO THEIR SUBSTANCE.—J. Schenck (*Journal of the American Medical Association*, June 27, 1891) has been unable to find record of ergot having been injected directly into the morbid growth itself in the treatment of fibroid tumors of the womb. He has adminstered it several times in this manner with satisfactory effects. The first case was 52 years old. She had a tumor of about the size of a goose-egg. Half a drachm of fluid extract of ergot was injected, by means of a hypodermic syringe, into the substance of the tumor, once a week for two months. At the end of this time the tumor suppurated and was expelled. The patient recovered. The second case was a well-defined intra-mural tumor, the size of an orange. Half-drachm doses of ergot were injected daily for eighteen days. At the end of that time the metrorrhagia had ceased. No mention is made as to the reduction in size of the tumor. The third case had a hard tumor, the size of a child's head, in the lateral wall of the womb. Half a drachm of ergot was injected once a week for five months; this controlled the hæmorrhage during that time. At the end of this time the tumor was found to have pushed itself into the uterus, and become pedunculated. It was removed by an écraseur. The substance of the tumor was soft and friable, and would probably soon have broken down in suppuration. Schenck has not observed any serious effects resulting from these injections (?); in a few instances a slight chill, accompanied by moderate fever, followed by the use of the syringe; but these symptoms subsided in the course of a few hours. He has several other cases under observation.—*Union Medical Magazine.*

A NOBLE PROJECT.—Rich people, people in moderate circumstances, or people who have at times some difficulty in making "both ends meet," could not make a better use of their money, if they are moved to spend any of it, however small the amount, for benevolent purposes, than to contribute toward the endowment fund of $60,000 for the Habitués' Home, which Dr. Mattison is about to establish in this city. The project is a noble one, indeed. Some of our most distinguished citizens—distinguished for their public spirit and high standing in the community—are interested in the great work which Dr. Mattison proposes to undertake. A splendid building, to cost $100,000, is to be erected for the treatment of victims of the the opium, chloral, and cocaine habits. The friends of those who are able to pay for their treatment will do so, and the endowment fund of $60,000 is to provide for the treatment of patients who cannot afford to pay. Between the private patients, however, and those who will be paid for out of the endowment fund, no distinction will be made. The fact that they are public patients will be known only to the Director of the Home and the friends of the patients.

In the hurry, rush, and nervous strain that is the outcome of the complex civilization of to-day, many nervous systems are shattered to an extent that makes treatment by the use of the drugs named a necessity.—*Brooklyn Standard-Union.*

A FATAL RESULT OF BAPTISM BY IMMERSION.—A distressing occurrence is reported in a German medical journal. A young woman who was a candidate for immersion amongst the Baptists, after undressing to her chemise and stockings in the vestry, put on a cotton wrapper and came into the chapel to be baptized. She was completely immersed in the baptistry, which was filled with rain water at a temperature of about 40° F., the ceremony not lasting above a minute. After this she walked back into the vestry, but immediately became unconscious, and, notwithstanding all possible efforts being made to resuscitate her, succumbed. The post-mortem examination revealed that there was cardiac disease. As, however, there was no doubt that the immersion was the determining cause of death, the unfortunate minister who performed the ceremony was at first sentenced to a week's imprisonment. This was, however, ultimately remitted. The neighboring Baptist congregations have, it is said, taken warning by the case, and have arranged to have the water for immersion always warmed in future, as is, we believe, the custom in this country. Another suggestion naturally arises from such an occurrence as the above—namely, that persons suspected of heart disease should have the benefit of a medical examination before being submitted to the rite of immersion.—*Lancet.*

A Drug Treatment of Pneumonia.—In a lecture on "Acute Lobar Pneumonia," by Dr. A. K. Hill (*N. Y. Med. Times*), the writer states that the disease is infectious and self-limited. He then goes to mention twenty-three different drugs as being of use in the disease. The list is an interesing one: Aconite, vertratum, arnica, gelsemium, belladonna, byronia alba, chelidonium, digitalis, iodine, epicac, the potashes, calomel, nux vomica, opium, phosphorous, rhus tox. sanguinaria, tartar emetic, sulphur, arsenicum, charcoal, phenacetine, liq. ammon. acetat. A good word is said for all of these in accordance with the indications, but perhaps the most surprising indorsement is that of vegetable charcoal, which we are told will "almost snatch a patient from the pangs of death when there is profuse cool sweat, small and rapid pulse, great prostration, dry tongue, offensive excretions," etc.

Suitable and sensible remarks are made regarding the use of nourishment and stimulants, but the large emphasis laid upon drugs is surprising. We recall to our readers an article by Dr. Fenwick reviewing the results of treatment of one thousand cases of pneumonia at the London Hospital. The conclusions he drew was that the best results were obtained by the use of ice and the ice-cradle, sponging and packs, with proper nourishment and stimulants. Instead of mentioning twenty-three drugs, he mentioned four, and spoke ill of each of them.—*Med. Rec.*

[We are with Dr. Fenwick.—Ed.]

Baths for Elderly Persons.—Dr. Emerson states in the *Annals of Hygiene* that the use of baths in elderly persons restores elasticity and smoothness to the skin; loosens the tissues and thereby brings back fullness and rounds to the limbs. It prevents eruptions of the skin and where present it removes them often, even from the face. It prevents the body giving off too much heat, which enhances nutrition. He gives the following rules for bathing:

It is well to commence with these baths as soon as the first infirmities of age begin to make themselves felt, between the fiftieth and sixtieth year. Two or three baths should be taken every week. As the water cools off, hot water must be added and the thermometer consulted.

The best time for bathing is the forenoon, about two hours after beeakfast, or the afternoon, about four hours after midday meal.

After the bath the body must be well dried and rubbed with coarse towels.

Baths either too hot or too cold are dangerous to old people.—*Dietetic Gazette.*

When to Discontinue Mechanical Treatment in Hip-joint Disease.—At a meeting of the Section on Orthopædic Surgery of the New York Academy of Medicine, Dr. Newton M. Shaffer called attention to the difficulty which often existed in dceiding when to discontinue mechanical treatment in hip-joint disease. The following conditions contra-indicated the removal of the apparatus: If manual concussion produces pain or flinching; if there is considerable deformity without ankylosis; if there is a true joint-limp or if there are abscesses or sinuses connected with the joint; or if there is a true reflex muscular spasm, limiting movement slightly in all directions; if there is almost perfect flexion, with the other movements considerably or markedly limited; if flexion, abduction and adduction are excellent, with rotation and extension limited; and, finally, if all the movements are almost normal, except rotation inward during flexion (the limitations being due to the neuro-muscular protection). --*Med. News.*

Iodide of Potassium in the Treatment of Urticaria.—Stern has successfully treated five cases of chronic urticaria by the administration of odide of potassium, four of the cases having been rebellous to all the measures usually employed in this disease. The fifth case was one of acute urticaria of a few days' duration. None of the patients were syphilitic and all were rapidly cured. In one case which had lasted for four months the intolerable itching disappeared on the second day of treatment, and a complete cure was obtained after two and a half drachms of the iodide had been administered. In two other cases, one of two years' and the other of six years' duration, the effect of the iodide was equally good, cure following the administration of six and eight drachms respectively.—*London Med. Recorder.*

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

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AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER, 23 Rue Richer, Paris.

TORONTO, OCTOBER, 1891.

The LANCET has the Largest Circulation of any Medical Journal in Canada.

DIPHTHERIA—OUR PRESENT KNOWLEDGE OF IT.

The long-drawn disputings and questionings that have made that common and fatal disease, diphtheria, the shuttlecock of the profession, seem at last to be drawing to a close, and the opinion of experts is becoming settled, mainly a result of bacteriological research. The questions that have been so long, and are still some of them unfortunately, unsettled, are such as these: Is diphtheria primarily a local or a constitutional disease? Has it any connection with the non-contagious pseudomembranous laryngitis called croup? Are other throat affections characterized by the formation of membranes properly to be called diphtheritic, such as tonsillitis, or the anginæ seen in scarlatina and sometimes in measles? From the point of view of the etymologist, *diphtheritic* is a term correctly applied to any inflammatory condition, wherever it may exist, which is accompanied by the formation of an unnatural membranous covering of the part involved in the inflammation. The Greek διϑθέρα meant *leather, prepared hide.* But the pathologist has taught us a specific meaning for the term. A true diphtheria is a localized inflammation of a mucous membrane, due to the deposition upon it of a bacillus, known now as the Klebs-Loeffler bacillus, the ptomaine formed by which is so virulently poisonous to the human organization as to cause 1, the death *en masse* of the superficial layers of the epithelium in which the irritant is lodged; and, 2, serious constitutional disturbance and the clinical symptoms known to every practitioner. As regards the local condition, a true diphtheritic membrane therefore will contain, as distinct from a false membrane, not only the true Klebs-Loeffler bacillus along with a multitude of others, but a tissue of necrosed, coagulated epithelial cells, closely adherent, of course, to the subjacent un-killed tissues, and therefore requiring some force for its removal, and leaving a bleeding surface.

The false diphtheritic membrane may simulate the true very closely, but will be the result of a less virulent irritant, and will contain, of course, effused fibrin of greater or less viscosity, shed epithelial cells, inspissated mucus, and white or even red blood-corpuscles, according to the violence of the inflammatory process, together with extraneous matters, such as bacteria, food, or other particles, a mass much more closely resembling ordinary *sordes.* The reason of the greater adhesiveness and tendency to bleed of the true diphtheritic membrane is thus easily seen. The results of bacteriological enquiry must be accepted on trust by men in practice, and it is therefore pleasant to be able to lean upon the categorical statements of observers so trustworthy as Dr. Wm. H. Welch, of Johns Hopkins University. In the annual address before the State Faculty of Maryland, this year, he gave the following, among others, as conclusions at which he had arrived, backed up by careful investigations in the famous Pathological Laboratory of his University: "The specific germ of diphtheria is a bacillus devoid of independent mobility, averaging in length about that of the tubercle-bacillus. It presents itself, both in diphtheritic membranes and in cultures, in such bizarre forms that these belong to its most characteristic morphological properties. It grows upon various culture *media,* and in milk. It grows readily outside the body. It has no *spores,* but is very resistant, a fact which is shown in the viability of the disease in old clothes, rooms, etc., after many years. Diphtheria is, *without doubt, a local disease* . . . . . The constitutional symptoms are due to the reception into the system of a chemical substance, a poison produced by the bacillus. . . . . The difference in epidemics, mild or severe, is not easily explained. Similar differences are noted in experimental diphtheria. . . . . The anginæ occurring with scarlatina, etc., are not diphtheria, as the bacteriological examination would show. Other bacteria are frequently, but not constantly found. Diphtheria may be communicated from animals to man, and *vice versa*, also by milk."

Bacteriological research has not so far proved to be of such value in diphtheria as in tuberculosis, the bacillus of the latter being now stained and seen in five minutes by any practitioner who cares to take the trouble, and in suspected incipient phithisis no one should neglect the microscope as a means of diagnosis. Cases of arrest, if not cure, of the tuberculous process in the lungs, are not at all rare under proper treatment, even after yellow elastic fibres and bacilli had been found in the sputum. Still, such conclusions as those of Dr. Welch are valuable, if not as yet for purposes of diagnosis, certainly as furnishing indications for treatment. Firstly, being a poisonous focus, local germicidal treatment is urgently called for, best of all, perhaps, hydrogen peroxide, the eighteen or the fifteen per cent. solution in spray, as being very little irritant to the patient, and an effective bactericide. And, secondly, since a constitutional poison is circulating in the blood, it should be destroyed. As antidotes for this purpose do not yet exist, the next best course is supporting treatment, by which the vitality may be spun out till the poisonous process has exhausted itself, the culture having run its course. A scientific basis for treatment is thus established.

VENEREAL LEGISLATION.

We notice that the State of Massachusetts, in a very commendable spirit, has recently enacted legislation, endeavoring to control the spread of syphilis, by causing a rigid examination to be made of all the inmates of jails, penitentiaries and other public institutions of the Commonwealth. Those evincing any signs of the disease are isolated and placed under treatment until, in the opinion of the surgeons, no further danger is to be apprehended. It would be an excellent thing if the Canadian Government would follow the same plan; for few, even among the profession, have any idea of the amount of specific disease that lurks in our large cities.

Let but a single case of small-pox appear, and the country is up in arms, at a moment's notice, while, owing to the mock modesty of a certain set of puritanical Pharisees, the much greater evil is allowed to spread its loathsome germs unchecked, bringing misery into thousands of homes in the Dominion and menacing the health of future generations. A case of syphilis which has recently come under our observation, may be of interest to our readers, as it presented several peculiarities not commonly met with.

Mr. A——, of Alberta, a strong, healthy-looking young Englishman, about 26 years of age, presented himself for treatment in the early part of July, 1890, suffering from gonorrhœa, due to unclean connection with a woman from Montana, the previous week. The usual remedies were given for about two weeks, when a small sore made its appearance upon the prepuce, rapidly assuming the characteristic appearance and induration of a Hunterian chancre, whereupon the diagnosis of syphilis was made, and the patient sent to Banff Hot Springs, where he remained but a short time, going out to the coast for a trip, returning home in about three weeks, suffering from the secondary manifestations of the disease—severe sore throat, mucous patches in the mouth, and a rapid loss of hair from the head, eyebrows and moustache, which had been preceded by a transient roseola before leaving British Columbia.

This brings us to the middle of August, when a macular eruption made its appearance on the limbs and body, becoming papular within a day or two, and of the lean-ham color peculiar to syphilis. A few days later, these became covered with minute scales, which were soon shed, leaving the skin clearer and more healthy looking, so that prospects for an early recovery looked bright.

Then the patient complained that it hurt him to walk, and upon examining his feet it was found that the soles and toes were covered with minute blebs, filled with a greenish-looking fluid, which rapidly increased in size until the sole was one large blister, filled with a horribly fœtid serum. Next, the hands exhibited the same condition of affairs, the large pemphigus-like bullæ almost hiding the normal shape of the palms and fingers. While this had been going on, the body once more became covered with a scaly eruption, being of a lobster-like redness, approaching a condition of pityriasis rubra. These minute scales were cast profusely, only to be replaced by others as soon as a new epidermis formed. The axillæ presented a condition of moist eczema, being chafed and excoriated by the slightest movement of the arms, contrasting strongly with the dry scurfy eruption upon the body, and, to cap the climax, severe double iritis, which had been looked for, set in towards the end of the month of August. It was soon controlled, however, by instillations of an 8% solution of atropine. On the 2nd of September, Mr. A—, complained of a sensation as of "pins and needles" in the limbs, and had sudden, convulsive jerks, which he attributed to a sensation of coldness, whereupon implication of the cord was suspected, and verified the next week by an almost complete loss of power in both lower extremities, paraplegia setting in with great rapidity.

He was unable to void his urine, and the catheter had to be passed twice a day. The fæces were passed involuntarily while in bed, adding to the unfortunate patient's misery, the mind being clear up to this time.

Mr. A—— was now sinking so rapidly that during the last week in September he was removed to the hospital at Medicine Hat, where he became delirious and died three days later. No *post-mortem* was held, and the cause of death, as entered on the hospital books was cerebro-spinal meningitis. The strange features of this case were, the rapidity of the course of the disease (three months), the inefficacy of the usual treatment, and the strange character of the eruption, there existing at the same time a condition of pemphigus on the palms and soles, pityriasis of the trunk, with a moist eczema of the axillæ and inside of thighs. The patient informed us that two brothers had died in India, from some skin affection, the nature of which he was in ignorance of, so that there may have existed some idiosyncrasy which would account for the virulence of the attack. I have purposely omitted speaking of the treatment, which consisted of the usual remedies, suggested by the medical men who saw the patient in consultation. Nothing, however, even for a moment, held the disease in check.

Having mislaid the notes of the case, taken at the time, this account is naturally incomplete in some details, but will serve to bring before the minds of the profession the often overlooked fact, that syphilis not infrequently ends fatally, and that it behoves us to try and have proper laws passed for the protection of the community from this hidden plague.

THE TRIENNIAL CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

The Second Triennial Congress has come and gone, and has been, on the whole, a decided success. It is a question whether those having charge of the arrangements did wisely in selecting Washington as a place of meeting. The chief claim seems to have been that it was almost equally inaccessible to all, which, parodoxical as it may sound, is an advantage when the "effete" East, and the "howling" West are wildly contending for expositional spoils.

A meeting presided over by so distinguished a man as Wier Mitchell, could not fail to obtain the respect of the profession everywhere, nor was public confidence misplaced. Dr. Mitchell's address was a model of elegance. erudition and laborious research. Professor Pepper, of Philadelphia, made an efficient chairman of executive committee, and was ably seconded by Dr. Carmalt, of New Haven, as secretary. The invited guests of the Congress were limited in number, and were—Sir William MacCormac, Dr. Wm. Ord, Mr. Thomas Bryant, Mr. Arthur Durham, and Mr. Reginald Harrison, London; Dr. W. T. Gairdner, Glasgow; Prof. John Chiene, and Dr. Batty Tuke, Edinburgh; Prof. Cunningham, Dublin; Dr. G. Sterling Ryerson, Toronto, Canada; Dr. Beely, Berlin, Germany; and Dr. Hoffa, Wurzburg. The meeting was characterized by an absence of the professional *Medical-Association fiend*, owing probably to the entire absence of outside amusements. Good, solid, scientific work was consequently done. The discussions were of a high class, and the papers rather above the average. There was but one serious drawback—the overpowering tropical heat of Washington, rendering sleep a reminiscence and a clean boiled collar an impossibility. In other respects the Second Triennial Congress will long remain in the affectionate remembrance of its members.

TREATMENT OF TRACHOMA.

To the Editor of the Canada Lancet.

Sir,—I can fully endorse all you say in favor of what you call "the new treatment of trachoma." I have had five years experience of this mechanical method, and I am satisfied it reduces the length of the treatment to less than one-third that required by the usual method.

After applying cocaine solution—16%—two or three times within fifteen or twenty minutes, I evacuate the contents of the trachomatous bodies by means of the blades of the ordinary iris forceps. The process is a combination of squeezing and stripping, care being taken of course not to lacerate the infiltrated palpebral conjunctiva. I do not usually resort to scarification, but I do not doubt it would be advantageous to puncture the larger "sago grains" before submitting them to pressure.

The treatment is followed up by either the copper sulphate or the plasma Hyd. Ox. Rub. I prefer the latter.

Respectfully,
A. M. Rosebrugh.

Toronto, Sept. 18th.

THE DETROIT GYNÆCOLOGICAL SOCIETY.

At the August meeting of the above, Dr. Jenks announced the sad news of the death of our honored corresponding Fellow, Dr. George A. Tye, of Chatham, Ontario.

The President, Dr. Imrie, appointed a committee to draw up suitable resolutions upon the death of Dr. G. A. Tye, and at the September meeting, the following were offered and adopted:

Whereas, this Society has learned of the recent death of Dr. George A. Tye, of Chatham, Ontario, one of its distinguished corresponding Fellows, who has met with us on several occasions and has furnished valuable contributions to our transactions; we desire, not only, to pay a tribute to his memory, but also to express as far as possible our appreciation of his many sterling qualities as a man, and of the enviable distinction he had attained as a physician and surgeon.

Resolved, That we deeply deplore his loss to the profession he had so long adorned.

Resolved, That we recognize in the character of Dr. Tye, the attributes of an accomplished physician and valued friend.

Resolved, That the family and friends of our late brother, have our heartfelt sympathy in their bereavement.

Resolved, That a copy of this preamble and the accompanying resolutions be forwarded to the family of our deceased brother, and, for publication, to the medical journals of Ontario and Detroit.

E. W. Jenks, M.D. } *Committee.*
H. A. Gerry, M.D. }

After the reading of the resolutions an eloquent and touching tribute was paid to Dr. Tye as a friend, a physician and a Fellow of this Society.

(Signed) H. A. Gerry, M.D.,
Secretary.

84 Lafayette Ave., Detroit, Mich.

INFANT DIETARY.

To the Editor of the Canada Lancet.

Sir,—I am in receipt of a letter from Thomas Leeming & Co., of New York, agents in America for Nestlé's Food, objecting to a statement made by me in the article on "Infant Dietary," in last month's Lancet. The objectionable sentence is as follows: "Henri Nestlé will tell you that his food is better for the child than the mother's milk." It was not intended to be taken literally, nor do I think that anyone would take it so. It was used in the introductory part of the paper, and was quite apart from that portion which dealt separately with the prepared food.

Some years ago a big pamphlet was distributed extensively in New York City, advertising Nestlé's food. In an address delivered to the New York State Medical Society in 1882, Dr. Jacobi, the President, discussed the pamphlet, and spoke very freely in reference thereto. The objectionable phrase used by me was an inference drawn from statements made by Dr. Jacobi. He may have been wrong in hinting at such a possible statement by Henri Nestlé; however, I have never seen the statement made in any advertisements of Nestlé's Food, and therefore desire to withdraw the statement as attributed to Henry Nestlé, to prevent any possible misunderstanding.

Yours truly,
W. J. Greig.

Toronto, Sept. 28th, 1891.

Excision of Syphilitic Chancre.—In a recent issue (Aug. 1891) we made a note on the Abortion of Syphilis by excision of the initial lesion. We now give the following from a paper by Julian, *L'Union Méd.* on the same subject: He says that the operation should be done with just as much care as the removal of a cancer. He elevates the chancre with a tenaculum and cuts beneath it with a bistoury in preference to the scissors, and by palpation of the borders of the wound makes sure that the whole of the indurated area has been removed. For anæsthesia he employs cocaine.

He has had occasion to do the operation eighteen times in the last ten years. Three of these cases were lost sight of entirely, therefore he can only report the effects produced in fifteen cases. In four of these cases no constitutional effects were noticed, two of them marrying afterwards and are the fathers of healthy children. In six of the remaining eleven cases there was great benefit by the excision, to the extent that the disease was considerably attenuated, the secondary manifestations having been very slight. In the other five cases the incision had no effect upon the course of the disease.

Salicylate of Sodium in Gonorrhœal Orchitis or Epididymitis.—Pignoret, of Paris, says the *Phila. Med. Times*, thus concludes a paper on this subject:

1st. In gonorrhœal orchitis, salicylate of sodium will bring about a diminution of pain in a few hours, and in a longer time it will cause its disappearance.

2nd. It acts well above all in cases that have acute epididymitis.

3rd. When the inflammation of the cord is intense, the remedy will fail.

4th. In the large number of cases treated, the resolution of the swelling commenced very much quicker than in cases submitted to other treatment, and in a week or ten days the cure was complete, leaving nothing but a slight induration.

5th. This medication, then, has the advantage of allowing the patient to get about within a day or two at most. It is simple, harmless, and appears to be superior to all other forms of treatment in this complication.

An Antiseptic Mouth Wash.—Professor W. D. Miller, of Berlin, read a paper entitled The Human Mouth as a Focus of Infection, before the Section in Bacteriology at the recent International Congress of Hygiene and Demography. According to an abstract of the paper published in the *Lancet* for August 15th (*N. Y. Med. Jour.*) the author thought that an examination of the results of attempts to sterilize the fluids of the mouth would soon convince one that there were very few substances at present in the dental materia medica that were available for disinfecting the human mouth. A mouth wash recommended by him years ago, which he still considers decidedly superior to the best of the many so-called antiseptic mouth washes on the market, consists of twelve parts of benzoic acid, sixty of tincture of eucalyptus, four hundred of absolute alcohol, and three of oil of peppermint. It is to be inferred that such a mixture would have to be diluted very largely, and that the alcohol employed will cease to be "absolute" at once.

Abortive Treatment of Herpes.—Leloir recommends a small piece of gauze soaked in one of the following solutions, to be applied:

℞—Resorcin, ...	100.
Alcohol (90 %), ...	2.—M.

Or,

℞—Menthol, ...	1.
Alcohol (60 %), ...	100.

If there is much pain, use can be made of:

℞—Cocaine mur., ...	1.
Ext. cannabis indicæ, ...	10.
Essen. menth. pip., ...	10.
Alcoholis (90 %), ...	100.

Hydrastis Canadensis in Night Sweats.—Dr. Cruse relates in the *Allg. Med. Zen Wal Zeitung* (*Med. Press*), an observation made on the above-named drug. On giving hydrastis canadensis in a case of hæmoptysis, he observed that the night sweats did not come on as usual. The patient was in the last stage of phthisis. In another case in which all the usual remedies had been tried for night sweats, atropine, agaricin, sulphonal, ergot, with success only on commencing each drug, slight hæmoptysis came on and led him to order hydrastis, when the sweats disappeared. These observations led him to try hydrastis for the night sweats themselves. He gave 30 minims of the liquid extract, and always with complete success, and what is more, the sweats kept off even when the hydrastis had been omitted for three weeks. He met with similar good results in a number of other cases. Whether the effects will be at all lasting he does not pretend to say; he, however, recommends a trial of it.

Tape-worms.—Dr. Szczesny-Bronowski, of Tcherdyn, strongly recommends the following mixture for expelling tape-worms:

℞—Ext. filicis mario æth., . . .	ʒ iij.
Chloroformi, ...	℈ ij.
Emuls. olei ricini, . .	ex. vj.-℥ iij.
Syrupi menthæ, ...	℥ j.—M.

Sig.—Divide into two equal portions and take both, with half an hour interval, early in the morning, on an empty stomach.

Calomel, gr. vj., or an enema should be given on the preceding evening, at bed-time, to thoroughly cleanse the bowels.

Freckles.—The following treatment is recommended (*St. Louis Med. and Surg. Jour.*) for freckles:

℞—Ammon. mur., ...	4.
Acid. mur. dil., ...	5.
Glycerini, ...	30.
Lait virginal, ...	50.

Sig.—Touch the freckles, morning and evening, with a small brush dipped in the above.

N.B.—Lait virginal is composed as follows:

℞—Tr. benzoin, ...	1
Aq. rosæ, ...	4

This must be well shaken to obtain the milky color characteristic of the mixture.

Premature Rupture of Membranes not followed by Miscarriage.—Dr. Johnson (*Journ. of Am. Med. Assoc.*) reports two cases in which he believed that premature rupture of the membranes was not followed by miscarriage. Cases of this kind are certainly remarkable on account of the rarity of their occurrence. The question at once arises, Can such rupture take place without a miscarriage? The best authorities say that there may be an accumulation of fluid between the amnion and chorion, from chronic inflammation of the decidua, known as "Hydrorrhœa Gravidarum," or cysts may develop between the membranes and uterine wall which, upon rupture, would not necessarily bring on miscarriage. May there not have been a mistake in the diagnosis in these cases?

Concussion and Compression. — Dr. Brinton gives the following (*Times and Reg.*) as points of difference between the above conditions:—*Concussion.*—1. Incomplete insensibility. 2. Partial muscular action. 3. Special senses act partially. 4. Patient can answer questions if roused. 5. Pulse quick; feeble; often intermittent. 6. Skin cold; temperature falls to 94° or 95°. 7. Respiration feeble; quiet. 8. Nausea and vomiting. 9. Pupils irregularly contracted. 10. Eyelids somewhat open. 11. Urine voided, fæces retained. *Compression.*—1. Complete insensibility. 2. Paralysis. 3. Special senses do not act. 4. Patient cannot answer questions if roused. 5. Pulse slow and laboring. 6. Skin hot and perspiring; temperature 102° to 104°. 7. Respiration labored, stertorous. 8. No nausea or vomiting. 9. Pupils irregularly dilated. 10. Eyelids irregularly closed. 11. Retention of urine; involuntary escape of fæces.

The Abortive Treatment of Erysipelas.—F. H. Pritchard (*Journal of Cutaneous and Genito-Urinary Diseases*) says that infection in erysipelas is not always limited to the reddened portion of the skin, but is found beyond this, in a latent state. If, from the first, there be symptoms of gravity, as high fever, headache, burning thirst and vomiting, we may suspect that the infection has overleaped the apparent limits. He applies, by means of a brush, some antiseptic solution as the following:

Solutions of carbolic acid and alcohol, carbolic acid and glycerine in equal parts, and, where these are not well borne, he employs:

℞—Hydrarg. chlor. corrosiv., .	1 part.
Glycerini, ...	1000 parts.

Intra-ocular Injections.-Abadie speaks (*Ibid.*) highly of the therapeutic value of intra-ocular and sub-conjunctivic injections. He quotes a case of syphilis of the eye, which showed excellent results from the intra-ocular injection of one drop of a 1-1,000 sublimate solution.

In a case of hæmorrhagic glaucoma where neither iridectomy nor sclerotomy gave relief, and the pains were of such intensity that only enucleation was thought to give relief, Abadie succeeded in quieting the pains, and prevented enucleation by intra-ocular injection of one drop of ergotinin. Darière (Paris), uses systematically, subcutaneous sublimate injections in iritis specifica, chorio-retinitis centralis, chorio-iritis, and all forms of keratitis.

INTUSSUSCEPTION.—Bartholow recommends the following treatment for intussusception :

℞—Sodii bicarb., ...	℈ ij.-iij.
Aquæ, ...	℥ vj.

Solve, fiat enema. Sig.—Inject and follow immediately with :

℞—Acidi tartarici, . . .	gr. xxxv.-xlvij.
Aquæ, ...	℥ iv.

Solve, fiat enema. Sig.—Inject immediately after the foregoing. The effervescence will cause the bowels to distend.

UNCONTROLLABLE VOMITING OF PREGNANCY.—Drs. Henske and Gottschalk (*Brit. Med. Jour.*), have found menthol efficacious in stopping the uncontrollable vomiting in pregnancy. Fifteen grains are dissolved in five ounces of distilled water, to which five drachms of rectified spirits are added. A tablespoonful of this mixture is given hourly till the vomiting ceases. The editor of the *Archives of Gynæcology* states that he had an opportunity of trying the efficacy of this mixture. Vomiting ceased after the fourth tablespoonful. Gottschalk reports two cases with similar results.

INDIGO AS AN EMMENAGOGUE.—Dr. Johns recommends (*Wiener Med. Presse—Times and Reg.*), indigo as an emmenagogue, which he prescribes in the following form :—

℞.—Indigo, ...	℥j.
Bismuthi subnitratis, . . .	ʒij.—M.

Sig.—Three times daily, a teaspoonful in a small glass of water.

With this treatment Dr. Johns claims that a certain degree of softening of the cervix occurs, followed by a serous secretion, and finally the menses appear. The urine becomes brownish-green, with bad smell, and diarrhœa of fetid character appears. Of thirteen cases of amenorrhœa, twelve cases were completely cured, one case proved to be pregnant. One patient took indigo for four weeks without showing any ill effect.

A TREATMENT FOR CANCER.—Professor Adam Kiewiez, of Cracow, who has for a long time been engaged in the study of the nature of carcinoma, published in the form of a short notice, the successful treatment of three cases. The remedy does not elevate the temperature, nor does it affect the general state of the patient.

In two cases, with cancer of the lower lip under treatment by the new remedy, the lymphatic glands diminished in size and local reaction appeared. Microscopic examination of the cancerous tumor and the lymphatic glands showed that the tissue was rarified on account of the disappearance of cells. The remedy will be made public when his experiments and clinical observations are finished.

ONE WAY TO COLLECT A BILL.—A well-known dentist tried hard to collect a bill, but after many ineffectual efforts said to the debtor : "I do not intend to send you any more bills, and I don't intend to sue you ; but there is one thing I want to tell you. Every time you cut off a piece of beefsteak and pass it to your wife, I want you to remember that she is not chewing that beef with her teeth, nor with your teeth, but with my teeth." In two or three days he received a check. The notion of those doubly-false teeth in his wife's mouth was too much for the husband.—*Med. Rec.*

FOR SWEATING FEET.—Dr. Stansel, writing to the Toledo *Med. Comp.*, says : The oil of tar (*Picis liquidæ oleum*), is the one remedy to be relied upon for the cure of this troublesome complaint. I wish to state that I have tried all the astringent remedies that have been recommended for this trouble, and have given all a thorough trial, but have never found anything equal to the above remedy. Simply bathe the feet or axilla, as the case may be, and a few applications only will be sufficient to effect a cure.

Books and Pamphlets.

THE LIFE AND CAREER OF SIR JOHN A. MACDONALD. By G. Mercer Adam, Toronto. The Rose Publishing Co., Toronto.

This work fully proves the saying, "Whoever writes the history of Sir John A. Macdonald, must write the history of Canada during the time in which he lived."

The school days of young Macdonald—his career as a rising young barrister, his election to the Kingston City Council, and soon after to Parliament, with his subsequent career of working, waiting and rising, and the last pathetic scenes in his long and active life, are described in a most interesting manner.

Although the Conservative leanings of the author are clearly shown, especially when speaking of the Hon. George Brown, and of his life, by the Hon. A. McKenzie, yet the leading political events during the past fifty years, are fully and truthfully given. The candor of the author is particularly noticeable in narrating the arbitrary and unconstitutional government of Sir Charles Metcalfe, the downfall of the "Family Compact," Toryism, and the establishment of the Liberal Conservative party.

The affecting withdrawal of Sir Allan MacNabb from political life—the active part played by Sir Francis Hincks—the noble and highly eulogized career of Robert Baldwin—the dignified administration of Sir Edmund Head—the tricky "Double Shuffle" by which the Brown-Dorion government was strangled at its birth—the accession of Macdonald and Cartier to power, with the various changes of Government and of policy down to the present time, are all told in a way that will entertain the reader, and give him a detailed acccount of the most important political events that have occurred in Canada since the union of the provinces in 1840.

The letter-press and general make-up of the book are excellent, and do credit to the publishers.

Practical Pathology and Morbid Histology. By Heneage Gibbes, M.D., Professor of Pathology in the University of Michigan; formerly lecturer on Normal and Morbid Histology in the Medical School of the Westminster Hospital, London, etc. Illustrated with sixty photographic re-productions. Philadelphia: Lea Bros. & Co.

In a work from the hand of one with the high reputation which Dr. Gibbes has, we naturally look for a very complete handling of the subject of pathology, and in the excellent treatise to hand there is no room for disappointment. The subject in the main is clearly and concisely dealt with. It is difficult to speak of any particular portion of the work in an exceptional manner, but the chapters which impress us most favorably are those on "Neoplasms or New Growth," and "Diseases of the Respiratory Organs." In the former the subject is exceptionally well handled, and with the illustrations furnished, leave it in favorable contrast with the vexed manner in which the subject is often dealt with in works of the kind.

In diseases of the respiratory organs, the most recent views upon pulmonary pathology are ably recited and illustrated, and many valuable additions are made, which render the subject particularly clear.

Funk & Wagnalls' Standard Dictionary of the English Language. New York: 18 and 20 Astor Place.

This forthcoming work promises to be *the* Dictionary of the times. From an examination of the sample pages we should say that the plan of the work is good, and that it must meet with acceptance by English-speaking people. It seems to contain an enormous amount of information up to the latest date, and so admirably arranged as to be easily found. We are particularly pleased with the groupings of definitions, with the synonyms, and compounds. If we judge aright this will be the most useful dictionary we have seen.

A Text-Book of Practical Therapeutics, with Graphical reference to the Application of Remedial Measures to Disease, and their Employment upon a rational basis. By Hobart Amory Hare, M.D., B S.C., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, etc., etc. Second edition, enlarged and thoroughly revised. Philadelphia: Lea Bros. & Co.,

In this treatise the author has brought within comparatively small compass, all the valuable therapeutic agents employed in ordinary practise. It is not a pure tabulation of facts, but the broad science of therapeutics is in a measure limited to a range of practical application, and many valuable suggestions work into an intelligible and estimable treatise. The chapters upon "Remedial measures other than drugs," and "Foods for the sick," will be found to contain many valuable and practical points.

Births, Marriages and Deaths.

Norton—Roberts.—On Tuesday, Sept. 1st, 1891, at the residence of the bride's father, by the Rev. William Grant, M.A., D.D., Thos. Norton, M.D., of Shelburne, Ont., to Miss Annie L., the only child of A. W. Roberts, Esq., of Port Perry.

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Original Communications.

NOTES OF FIVE CASES OF PHLEGMASIA DOLENS—WITH TREATMENT.*

BY J. M'WILLIAM, M.D., THAMESFORD, ONT.

In speaking of the progress of Phlegmasia Dolens, Playfair says: "After the acute stage has lasted for a week or a fortnight, the constitutional disturbance becomes less marked, and the pulse and temperature fall, the pain abates, and the swelling and tension of the limb now begin to diminish, and absorption commences. This is invariably a slow process; it is always many weeks, and it may be many months before the effusion has disappeared."

In speaking of the treatment, he says: "What has been said of the pathology of the affection, tends to the conclusion that active treatment of any kind, in the hope of curing the disease, is likely to be useless; our chief reliance must be on time and perfect rest," etc.

It is in view of these statements that the following notes are submitted to the Association:

Mrs. S., confined June 10th, 1887, labor protracted and terminated by forceps, considerable *post-partum* hæmorrhage. Did fairly well till June 18th, eight days after confinement, when she had a chill, followed by fever and sweating; for this quin. sulph. was prescribed. On June 22nd, twelve days after confinement, she began to complain of pain in left knee and groin; temperature 102.5°, pulse 106, also more or less stiffness and pain in all the extremities. In the previous April she had suffered from a mild attack of acute inflammatory rheumatism, which yielded promptly to soda salicylate. Her own impression was that she was now attacked in the same way, and had a return of her rheumatism. I was in doubt myself as to the exact nature of the trouble, though some tenderness in the iliac veins, and also in the popliteal spaces, made me suspect that phlegmasia dolens was the trouble. I ordered a cathartic of magnes. sulph. and infusion of senna, as the bowels were constipated, and soda salicylate in the following prescription:—

℞—Acid. salicylic, ...	ʒ iij.
Sodæ bicarb., ...	ʒ ij.
Aquæ, ad., ...	℥ vj.M

Sig.—Two teaspoonfuls in water every three hours till sweating freely, then every four or six hours.

June 23—Pain not any worse, swelling in whole left thigh, and distinct tenderness along course of femoral vein, also pain in calf, which was slightly swollen; pulse 90, temperature 100° F. The disease was now undoubtedly phlegmasia dolens and not rheumatism; sweating very profusely; ordered the salicylate every six hours.

June 25—General condition much the same; the limb more swollen, tender and red along course of large veins; ordered salicylate every three hours, as it seemed to be controlling the pain and fever. Right limb showing signs of the disease.

June 26-28.—Continued much the same, except that swelling was less. Fever gone in the mornings, pulse 70° to 80°; salicylate continued at greater or less intervals as the sweating was more or less profuse.

June 29.—Patient was decidedly worse, swelling and pain had set in more severely in right calf and thigh. Temperature 103.4°, pulse 115; swelling, pain and tenderness in left limb abated. From this I judged that the salicylate might be doing some good, and continued it every three hours till profuse sweating or head symptoms supervened, when the time between the doses was lengthened to four or six hours.

June 30—July 3.—The symptoms in the left limb had nearly disappeared, nothing but stiffness remaining. The right limb, the second one attacked, was also much improved, no pain of any account being present except when the limb was moved. The characteristic white color was never so marked in this limb as in the first.

July 6.—The fourteenth day of the disease, the patient was much improved, some stiffness still in limbs, but swelling and pain all gone; some tenderness along iliac veins and in popliteal spaces; appetite fair, tongue cleaning. In the meantime the salicylate had been discontinued and tonics substituted for it, and on July 12th, twenty days after the beginning of the disease all trace of it had disappeared, and the patient was able to be about the house and do her own housework.

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*Read before the Ontario Med. Association, June, 1891.

Case II.—Mrs. C., confined July 11th, 1887; confinement normal, terminated naturally in six hours; no hæmorrhage; patient very weak and extremely anæmic.

Six days after confinement phlegmasia dolens set in, and during the next three days both limbs developed all the characteristic signs of phlegmasia dolens; pain was extreme. In addition to means for relieving the pain, soda salicylate was given as in the former case. This the stomach, not good to begin with, bore for three days when it had to be stopped; twenty-four hours after stopping it the pain and tenderness became more intense, and the amount of morphine taken produced retention of the urine. On the sixth day the salicylate was again prescribed and given in cold tea, and less morphine was given. This was followed in six hours with profuse diaphoresis with much abatement in the pain, lowering of the fever, and a decided improvement in the pulse. Three days after this, on the ninth day of the disease, the patient was very weak; retention again came on, though the febrile symptoms were much abated and pain much less, the swelling and tenderness also being less marked. Consultation was suggested, and the consulting physician thought that the salicylate had had a sufficient trial, and that it would be unwise to follow it up in the weakened condition of the patient, suggested ammonia and digitalis instead of continuing local treatment the same. Two days after this, the eleventh day of the disease, the patient's stomach had improved somewhat, but the limbs were more painful and tender along the course of the veins. Salicylate was again prescribed with a more or less complete fall in the temperature, and great cessation of the pain within six hours. This was continued as the stomach would bear it, till August 2nd, the fifteenth day of the disease, when all fever having disappeared, and very little pain being complained of, this was replaced by tonics of iron, quinine, etc.

This patient made a very slow recovery, owing to the previous existing anæmia, but by August 9th was able to be about the house and take charge of her household duties, though not able to do heavy work. The swelling, pain and tenderness in the limbs had almost entirely disappeared.

Case III.—Mrs. O., confined April 1st, 1888. Labor normal, patient delicate and weak, but did fairly well till April 12th, when phlegmasia dolens set in in the left limb, with the usual symptoms of the disease. Soda salicylate and morphine were prescribed internally, while anodyne lotions and warm stupes were applied externally.

April 19.—Eighth day of the disease, pain and tenderness has greatly left the left limb, and the swelling is much reduced, but the disease is beginning to appear in the right limb. The temperature and pulse are higher than for the last three days. The salicylate, which had been lessened for several days, was now given again in full doses every three hours.

April 25.—The thirteenth day of the disease, pain almost entirely ceased in both limbs, some tenderness in both calves, and considerable swelling, more in the left, the one first attacked. The patient was now put on beef, iron and wine, and other tonics, and was about the house at work with no symptoms of the disease on May 11th, twenty-six days after the onset of the disease.

Case IV.—Ella R., aged 16, unmarried, confined January 11th, 1889. Labor protracted, terminated by forceps twenty-four hours after it had set in. Fourteen days after delivery her father came to see me, and told me his daughter had been taken two days before with a high fever, and great pain in her left thigh which was now much swollen and very tender. I gave her father a bottle of soda salicylate and anodyne liniment, and ordered warm poultices to the affected parts, also a dose of black draught to move the bowels. I was unable to see her for forty-eight hours after the above treatment was begun. I found her then with a pulse of 144, temperature 101.5°, and a most typical case of phlegmasia dolens as far as the appearance of the limbs showed. A mixture of digitalis and ammonia was added, and the salicylate continued every six hours. The symptoms gradually abated until the 11th of February, or seventeen days after the treatment was begun, all pain and most of the swelling and tenderness had disappeared, and the patient was able to sit up and be dressed, and was married on that day. In this, as in the other cases, tonics were given for a time, but the limb had completely recovered its functions and appearance, within three weeks after the onset of the disease.

CASE V.—Mrs. D., delivered of twins April 23rd, 1889, version being performed for the delivery of the second child by the attending physician, much hæmorrhage, patient very weak. Phlegmasia dolens set in eleven days after confinement, not severe, but both limbs were affected. The same course of treatment was pursued as in the other cases, with the result that on May 15th, eleven days after the disease set in, all trouble with the limbs had disappeared, and the patient though weak, was able to be up and about the house.

From the foregoing cases I would infer:

First—That we have in salicylate of soda a remedy that does modify the disease to a very great extent. I think I may fairly claim that it obviates almost entirely the tendency of the disease to become chronic.

Second—That to obtain this result, the drug has to be pushed to get its full physiological action, and persevered in for at least six or eight days.

Third—That the reason the drug does not seem to act with such promptitude as it does in rheumatism is:

(*a*) That the subjects of phlegmasia dolens were very anæmic and weak, and consequently bad subjects for the exhibition of such a drug as soda salicylate.

(*b*) That in phlegmasia dolens we have an inflamed condition of veins to overcome as well as a morbid condition of the blood.

Fourth—That the treatment of phlegmasia dolens by soda salicylate rests on as reasonable grounds as that of acute rheumatism. As, if we grant that rheumatism is due to the blood sepsis, arising from the presence of a special germ in the organism, and that soda salicylate is a potent remedy, and more or less effectual antidote for that condition, it is not unreasonable to suppose that it would be quite as effectual in the treatment of phlegmasia dolens. For without claiming any necessary relation between the two diseases, they seem to have some points in common, as for example, the condition of anæmia, and the excess of fibrin in the blood that exists in the majority of cases, the proneness of each to become chronic, and, lastly, should the result of my experience be borne out by further clinical observations, we will have another striking similarity, in that both diseases are beneficially affected by the action of the same drug, soda salicylate.

NOTES OF CASES.*

BY ALFRED J. HORSEY, M.D., M.C.R.S., E., OTTAWA, ONT.

TRACHOMATOUS KERATITIS, (OR PANNUS SARCOMATOSA.)

James H., aged 24 years, a well nourished and robust young man from the country, kindly referred to me by Dr. Rogers, consulted me on acconnt of failure of sight and soreness in his left eye, which had been steadily growing worse since February last. His vision in this the left eye = only $\frac{6}{36}$ or $\frac{20}{100}$, the second line of Snelling's wall type, while his right vision = $\frac{6}{6}$, or the last line. The upper lid was thickened, drooped, and moved sluggishly over the upper half of the globe. Involving both conjunctiva and cornea, and extending over the pupillary margin was a thickened network of vessels and membrane, giving the eye a reddened and inflammatory appearance, known as pannus. The condition resembled that frequently seen in the inner and outer canthi, especially of elderly people, known as pterygium, only much redder, and covering exactly the upper half of the eye, which was photophobic, lachrymated and was much irritated by wind and the movement of the upper lid, which was thickened, prominent and drooping, having a heavy and dropsical appearance.

There was no history of exciting cause, either material, thermal, chemical or organic, neither was there any peculiarity of diathesis apparent to me. On everting the upper lid it was found much congested and thickened by increased gland growth and granules, some of which were yellow, while the lower lid was simply congested.

To this Trachomatous condition of the lid, I attributed the morbid conditions of the cornea and sclera. The original disease being true trachoma or a granular condition due to a micrococcus, discovered by Sattler.

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* Read before the Ottawa Medical-Chirurgical Society.

The treatment was chiefly local, an alterative being also given ; generally, the eye was rendered anæsthetic by 10 per cent. Hcl. cocaine on a pledget of absorbent cotton, placed beneath upper lid three minutes before using Troy's forceps for stripping the granulations off the everted lid. This treatment, supplemented by cupri sulph. stick, followed by hot boracic acid lotions applied by himself, after his return home from my surgery, under which he steadily improved to recovery, which was reached on October 18th, that is, in little less than a month after coming under the treatment. The cornea had become quite clear, and vision = $\frac{6}{6}$, or normal.

He presented himself two weeks after, when there had been no relapse. I shall not here say anything of trachoma, of its treatment by massage and boracic acid, which is a recent method or jequirity, or what not, but simply state that this disease was due to the state of the lid, and that treatment of it alone proved the correctness of this belief. This condition in trachoma, I have since learned by reference to my text books, is, in Europe, a well recognized disease, of which there are three grades described : pannus tenuis, pannus crassus, pannus sarcomatosa, when it was very thick and flesh like, as was the case I have endeavored to describe. The inflammation is said to take place between the epithelium and the cornea, and the anti-elastic layer. It may be complicated by ulceration of the cornea, and perforation of its deeper layers and bulging or staphyloma of the cornea, or it may render it opaque

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A Blow on the Eye Immediately Followed by Loss of Vision, and a few Weeks Later by Optic Atrophy.

Mrs. W,, a healthy woman, aged 60 years, kindly referred to me by Dr. Small, on account of sudden and complete loss of vision of her right eye, presented herself to me on March 7th. Two weeks previously she received a sharp blow upon the right eye with a rubber shoe held in the hand, when her sight, which had in this eye been previously good, was totally extinguished.

There was much chemosis beneath the orbital conjunctiva, particularly its upper and inner parts. Pupil normal in size and shape ; reflex to light not wholly lost. (Concensual contraction very marked), that is, contraction in the wounded eye after shading and uncovering opposite eye, excessive, showing that the optic nerve of the sound eye carried the impulse of light to the reflex centre of the injured eye—upholding the theory of the decussation of the optico-pupillary fibres. Vision *nil*—not even perception of light.

Ophthalmic Examination—Media perfectly clear, hyperæmia of fundus generally, optic neuritis, upper and lower margins of disc obliterated, vertical vessels blurred, no rupture of choroid, no detachment of retina nor hæmorrhage. Fundus of left eye normal, vision = $\frac{6}{6}$. To bathe frequently with warm acidi boracici lotion.

March 9th.—Two days later, no perceptible change in external condition of the eye, nor fundus ; no perception of light.

℞—Ung. hyd. nit. to temple.
Pot. Iod., gr. x.—ter die.

March 11th.—External extravasation absorbing; blurring of margins of disc lessened ; fundus looks less red ; optic disc paling ; margins still ill-defined ; stippling of lamina cribrosa ; beginning optic atrophy.

April 8th.—Six weeks after injury ; margins of optic disc clearly defined ; atrophy clearly visible and increased ; retinal arteries lessened in size.

April 24th.—Atrophy increased.

Prognosis was at first hopeful for the return of vision, as there was no gross lesion found in fundus. Hæmorrhage may have taken place in the choroid, which time would absorb (though likely to leave atrophies).

But after the lapse of several weeks, the superficial chemosis clearing, and also the optic neuritis, without any return of vision, and the supervention of optic atrophy, a prognosis consistent with these observations demanded a reversal of the former hopeful prognosis.

The probable cause of the sudden and complete loss of vision was injury to the optic nerve, involving its structural integrity, followed by atrophy at its periphery, or, possibly, hæmorrhage within its sheath, causing subsequent wasting.

Hernia of the Lachrymal Gland.

I was called to the case I am about briefly to relate, on the evening of Oct. 5th (1890), viz.: Hernia of the lachrymal gland, which must be exceedingly uncommon, as I have not been able to find it mentioned in text-books—though it is not on account of its rarity that it is brought to your notice; but for the serious mistake this rarity may entail in the treatment; by removing it as a redundant piece of fat, in order to more readily facilitate the closing of a wound of the orbit, thereby rendering the eye dry and lustreless, and perhaps engendering other changes.

Cora B., aged 4 years, while carrying a tea-cup, fell with her face upon it, breaking it, and inflicting an incised and somewhat punctured wound near the upper and outer angle of the right orbit, dividing the upper lid between its tarsal cartilage and the brow, in an upward and obliquely outward direction, to the extent of ¾ of an inch through which wound protruded what at first sight was thought to be a globular piece of intra-orbital fat, and I am not sure that the thought of getting rid of it from the wound by snipping it off, did not momentarily occur to me. But fortunately the little gland was thought of, and the position and extent of the wound such as would be most favorable for its escape. On closer examination by a better light, as it was after dark, the gland was satisfactorily made out, and replaced as near as possible to its normal position, and the wound carefully stitched together, which, after a few days, completely healed without any ill results.

There is, perhaps, no part of the lachrymal apparatus which gives so little concern surgically. as the lachrymal gland, which stands in marked contrast to the excretory lachrymal apparatus, the ducts and sac, which are so frequently the seat of disorder. This, no doubt, is in a great measure due to its sheltered position in the fossa of the temporal bone, its under-surface, resting on the globe of the eye, upon which its secretion is poured out by means of several short ducts. The gland appeared to be the larger lachrymal gland, which occupies the temporal fossa, and not the smaller and frequently concomitant gland, which is covered by the fascia of the lid. The wound in position and extent corresponded to the incision sometimes made for the removal of the gland after removal of the globe, so as to render the orbit more free from moisture.

Post-Spinal Sclerosis.

George B., æt. 24 years, formerly a slaughterman, at present a laborer in a railway yard, came to me on February 6th, 1891, on account of failing sight for two years past. With right can only see shadow of hand, cannot count fingers. With left counts fingers at four feet. Color-sense completely wanting. Right pupil dilated, unaltered by light or accommodation. Left pupil does not contract to light, but does so feebly to accommodation.

Ophthalmoscopic examination — Right media clear; refraction normal; O. D. showed marked atrophy, especially at its outer side, causing excavation; lamina cribrosa plainly seen, giving it the usual stippled appearance; arteries diminished in size, veins somewhat tortuous; left O. D. greyish and showed atrophy less advanced.

These conditions being highly suggestive of spinal sclerosis, his reflexes were tested and found wanting. Enquired for lightning pains, which elicited the reply that he was much troubled with rheumatism in his legs, which often came and went suddenly. His gait is not ataxic, but he sways when standing with feet together and eyes closed. Sexual desire somewhat lessened. The special senses, other than sight, apparently unaffected. Some months ago had a hesitancy in making his water, that is, when the desire to void it was felt and he was ready to make it, he had to wait some time before it was voided.

This in my opinion, in all probability, is a case of post-spinal sclerosis or progressive locomotor ataxia, doubtless specific in its origin, as he admits having a sore on his genitals twelve years ago, followed by constitutional phenomena — which we know is the most frequent origin of it—Gowers giving it as the cause in about 50 per cent. of the cases.

I have presented the patient and reported the case to you to-night as one of much interest, showing, along with other things, the value of the ophthalmoscope in the diagnosis of a general disease in its earlier stage.

N.B.—Since reporting this case to the Society, patient consulted a neighboring ophthalmologist, who confirmed the conditions seen in the eye and also the diagnosis.

THE SYMPTOMS AND CAUSE OF EYE-STRAIN, AND ITS DIAGNOSIS BY THE GENERAL PRACTITIONER.*

BY W. CALDWELL, M.D., PETERBORO', ONT.

Mr. Chairman and Gentlemen,—I feel that I should almost apologize for introducing to you the subject of Eye Strain; and do not do so on account of any large experience, nor because I can present any original observations, but because it is a field not much occupied by the general practitioner, and, therefore, a favorable one for a few brief, crude, but I hope, practical remarks on a subject which has of late received a great deal of attention from the specialist in nervous diseases, as well as from the specialist in eye diseases.

The diagnosis of this condition, however, is of not less importance to the general practitioner, especially if he is not convenient to the oculist.

I feel sure, both from my own experience and my reading, that it is just as essential, in some of the cases that present themselves to us for treatment, to ascertain whether the patient is suffering from some defect of vision, which may be the cause of reflex symptoms that simply need a pair of spectacles for their relief, as it is in other cases to ascertain the cause of fever, a rigor, or a convulsion; and it can be done more easily and with greater certainty.

Eye-strain may be defined as any abnormal exertion of the ocular muscles, resulting from errors of refraction, or any want of their equilibrium from other causes; the latter we do not intend to discuss.

The most frequent causes are an eye-ball too long, causing myopia, or short sight; or one too short, constituting hypermetropia, or far sight; and variations in each of these conditions called astigmatism.

According to some authorities whose opinions and conclusions are entitled to every respect and consideration, eye-strain often causes such diseases as epilepsy, chorea, hysteria, migraine, bilious attacks (so-called) neurasthenia, dyspepsia, mal-assimilation, and consequently anæmia; one observer asserting that the iron in the spectacle frames do the red corpuscles more good than it would do in pills.

I think, however, I shall not be occupying uncertain ground in stating that headache, migraine, neuralgia, and nervousness, are frequent and persistent symptoms of eye-strain. Reading, sewing, or continued effort at any close work, may produce a wearied, tired feeling not easily described; the eye-balls ache, or the eyes become watery or suffused; after reading for a time the letters run together, there is blurring, and the patient must rest. These or other symptoms may be present, and yet the patient not suspect anything wrong with the eyes. Boys with short sight like their books, while boys with far sight dislike them, and will take to outdoor amusement.

With regard to the importance of headache as a symptom, Dr. Geo. Gould, in a paper read less than a year ago, before the Philadelphia Hospital Medical Society, says that in the first thousand refraction cases that occurred in his private practice, a chief complaint in over 800 was headache, and the failures to cure or relieve were not over half a dozen.

Dr. Peter Callan, of the N. Y. E. & E. Infirmary, in a paper in a recent number of the *Jour. of the Amer. Med. Assocn.*, gives it as his opinion that 75 % of functional headaches are due to eye-strain, while other authorities consider that it causes more headache than all other causes combined.

Squint, styes, blepharitis and conjunctivitis, are often due to the same cause, a squint often requiring no operation if a proper pair of spectacles are worn.

As I have intimated, the diagnosis of defects in vision or errors of refraction, which cause eye-strain, is not difficult; needs neither special skill nor expensive instruments. All that is required is a card of Sn's Test Type for distance, and it is better to have two differently lettered.

Each line has a number that indicates the number of feet distant at which the line should be read by those whose vision is normal, *i.e.*, the first letter marked 200, should be read at 200 ft. distance; the line 40 should be read at 40 ft. distance; and so on; and those whose vision is normal can always read the line numbered 20 at 20 ft. distance, and this is the distance the card should be placed from the patient in a good light. If you cannot place it 20 ft., 15 feet will do, and then the line marked 15 should be read.

Each eye is now to be tested separately, and a record is kept for future reference. The number of the last line read, plus any letters read in the next line, is marked down. Oculists write it in the form of a fraction, 20 or the distance in feet from the card is always the numerator, and the number of the line is always the denominator, *e.g.* if the line marked 20 is read at 20 feet, the record for that eye would be vision $\frac{20}{20}$ or normal; if the line marked 40 is read it would be $\frac{20}{40}$ and if three letters in next line $\frac{20}{40} + 3$. Now paralyze the accommodation with a vi. gr. solution of homatropine; the same quantity of cocaine may be added. This is preferable to the sulphate of atropia, as the effects pass off in 24 to 48 hours; the latter lasting ten or twelve days. The effects of the mydriatic should be explained or the patient will become alarmed. One or two drops of the solution instilled in each eye every ten minutes for an hour will answer very well, or once an hour for a day before the examination is considered preferable. Each eye is now to be separately tested as before, and, better, with a different card. If the patient read the 20 line before and now reads it again with each eye, vision is normal, and no cause for eye strain-exists from any error of refraction. If the 20 line was not read before, but the same line is again read with the accommodation paralyzed, the case is myopic or short-sighted, and it is not probable that eye-strain exists if both eyes read the same line, though for convenience spectacles may be required.

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*Read before the Ontario Med. Association, June, 1891.

But now with the accommodation paralyzed if the same line cannot be read as before, but only the larger ones, there is either hypermetropia or astigmatism, or both, and a diagnosis of an existing cause of eye-strain can be made with certainty. When the cause has been removed by a proper pair of spectacles, it will become apparent whether the headaches or other symptoms have been due to that or not, and the patient can be treated more rationally.

As to how much the defect should be, before deciding whether spectacles are required, I will quote from one of the papers already referred to.

With reference to this Dr. Gould says :—This entirely depends on two things, the nature and occupation of the patient.

1. "If the patient be one of civilization's hot-house plants, a neurotic, sensitive, nimble-witted girl, the smallest defect is sufficient to play havoc with such a bundle of quivering nerves. If in such a case there is the slightest falling off of distant acuity under the mydriatic, if the same line of test type cannot be read just as easily, pack her off quick !

Between such a case, and the rugged out-of-door-living farmer there are a 1000 degrees to tax the best judgment of the best oculist as to what to do."

Lastly, patients under 40 years of age should never have spectacles prescribed for them by the druggist, jeweller, nor the optician, though it is frequently done, sometimes with the consent of the doctor.

To briefly summarize :—

(1) Errors of refraction often give rise to many symptoms that may effect the comfort and health of the patient, though not apparently referable to the eye.

(2) Hypermetropia, or far-sight, which is the most frequent cause of eye-strain, is often present, though vision is quite good.

(3) Patients, especially women, who suffer from recurring attacks of headache, neuralgia, dizziness or other symptoms that may be reflex, and children who have a dislike for their books, should have their eyes tested, no matter how acute the vision may be.

(4) Every general practitioner can easily ascertain with certainty, whether any error of refraction is present which may be the cause of reflex symptoms.

(5) Patients should be sent to the oculist, and not allowed to go to the druggist, jeweller, nor optician.

Note.—The mydriatic is not necessary in patients 50 or over, as a rule.

Selected Articles.

OBSERVATIONS ON THE NATURE OF CANCER.

The late Mr. Marshal proposed to devote the following pages to the elucidation and amplification of certain statements and views which could only be but briefly expounded in an extempore lecture of one hour's duration. In the present posthumous lecture he has, furthermore, dealt briefly with several questions relating to cancer which were altogether passed by in that lecture.

1. *Definitions and nomenclature.*—The confu-

sion begotten of the threefold use of the term "cancer," sometimes to define a *class*, sometimes a *genus*, and sometimes a species of tumors, or even in two or three of these senses, or at all events in a general and a special sense in the same page, is much to be regretted; but it is, perhaps, hopeless to attempt to rid ourselves of it for the present. A trace of such confusion lurks in the title of this lecture and of its two predecessors; for it is only by regarding the term "cancer" in one sense and the term "cancerous diseases" in another sense that the two terms become logically discreet, and subject to the copula "and." Otherwise, the combination is not merely tautological, but illogical; for a "cancer" must be a "cancerous disease," and a "cancerous disease" must be "cancer." It might be well if, although as physicians and surgeons we are wholly unable to exclude the word "cancer" from our vocabulary we could, under the guidance of the pathologist, more strictly limit its use. In practice, from kindly motives, the word "sarcoma" is frequently employed, when it is legitimate to do so, as a verbal mitigation of the more dreaded term. Doubtless, in ancient medicine and surgery, the earliest application of the term "cancer" was especially or chiefly to those forms of spreading and ulcerating growths which are typified by the hard, and hence so-called "scirrhus," tumors; but it was also applicable and was probably used, in regard to the softer and rarer forms of ulcerated new growths, later distinguished as encephaloid tumors; and, furthermore, it was employed in relation to the worst forms of progressively *eroding* cutaneous ulcers. But the term "cancer" undoubtedly came also to be used in relation to the larger forms of those tumors which are now designated "sarcomas," especially to those which are prone to ulcerate or slough, or have actually undergone those morbid changes. This is abundantly manifest by the descriptions and illustrations contained in theses and systematic works dating from the period of the revival of learning down to the present day. Notwithstanding the precise differentiation now established on anatomical grounds between those several tumors, their general characteristics, pathological significance and behaviour, serve sufficiently to unite them under the one term "invading or infecting tumors" But, it appears to me, a likeness or unlikeness in structure affords a more definite basis of a sound classification and just nomenclature than any resemblance or difference in their modes of *life*, propagation, or decay. The use of the term "true cancer," now sanctioned as a mode of distinction between the two chief and well-recognized divisions of these invading growths, is convenient, but unsatisfactory; for, again, a "cancer" is a "true cancer," and a "true cancer" is a "cancer." Moreover, no one dreams of seriously employing the complimentary opposite "false cancer." For my own part, I cannot bring myself to designate any sarcoma which is derived from non-glandular tissue elements as a cancer. I prefer to adopt the subdivision of these "*invading tumors*" into two leading groups; (*a*) the *theliomas*, and (*b*) the *sarcomas*, according as they are derived from the "covering or lining" constituents, or from the "substantial framework" constituents, of the body.

A. Theliomas, whatever may be their site or basis of origin in the body, are "cancers." They originate in or from parts of the body which are descended from one or other of the three so-called embryonic layers of the blastoderm—viz., the *epi-*, the *meso-*, or the *hypo*-blastic layers, and are either (*a*) *epi*theliomas, (*b*) *meso*theliomas, or (*c*) *hypo*theliomas. The epitheliomas (*a*) and the hypotheliomas (*c*) either effect mere plain membranes or surfaces, thus producing flat masses—the so-called plaques; or they effect the elevations or projections of a cutaneous or mucous surface, and so give rise to *warts*, or *papillomas;* or they effect the minute involutions of those surfaces, such as simple or compound open follicles, branched or contorted tubules, or small racemose glands, whether these belong to the skin or to the mucous membranes; or, lastly, they effect smaller or larger portions (never the whole) of the lobulated glands, such as the mammary gland, the salivary glands, the pancreas, the liver, the lungs, the testis, or the ovary, thus giving rise in these situations to more manifest and often very large tumors. In the case of the larger glands, and probably in smaller ones, the cancerous disposition may primarly affect the epithelium of the ducts or that of the acini of the gland, and thus either *duct cancers* or proper *gland cancers* arise. If the acini only are involved, an *adenoid cancer* is devoloped, which, indeed, constitutes a potentially, if not an actually invading *adenoma.* Lastly, the closed glands, such as the tonsillar and thyroid bodies and Peyer's patches, are liable to theliomatous disease. *Mesotheliomas* (*b*), which as *primary* formations are rare, are represented by such theliomatous growths as can be distinctly shown to originate in sites acknowledged to be within the area of those parts of the body which are derived directly from the mesoblastic embryonic layer—such, for example, as any well-established case of primary thelioma of the peri- and endo-cardium and the lining membrane of the bloodvessels, that of the lymphatic vessels and glands, and of the synovial membrane. These tumors must, of course, always be distinguished from deep-seated *secondary* growths, the products of invasion of an original *epi-* or *hypo*-thelioma. I believe there exists in every form of "thelioma," however minute, a substratum of modified basal tissue, not necessarily a distinct basal membrane which, as it seems to me, may probably be descended from the substance of the corresponding embryonic layer, whether epi-, hypo-, or meso-blastic; but the subject demands further investigation. I have long ago felt assured, from microscopic observations, that in every form of epithelioma and hypo-thelioma this modified basal tissue exists. It is obviously present in an elevated cancerous patch of skin or mucous membrane. It distorts a papilloma; it forms a loose and delicate stroma in soft gland, like the liver; and in an encephaloid growth it constitutes the firm and stubborn stroma of a scirrhus tumor; and it may even form a chondroid or osteoid framework in an originally theliomatous growth. The variety of invading new growths, known as *colloid cancers*, whether derived from epiblastic, hypoblastic, or mesoblastic tissues, are colloid theliomas, having very special characters, both as regards their peculiar cell elements and their interwoven stroma. In this respect they depart from the theliomas generally, in which, as a positive rule, the diseased and distorted individual cell elements maintain a general likeness to those of the healthy tissue in, upon, and from which they immediately spring.

B. The other group of invading tumors, the *sarcomas*, which originate in and from tissues which are especially derived from the mesoblastic embryonic layer, follow quite naturally the several varieties of those tissues. Such, for example, are the soft myxomas or mucoid tissue tumors, the round-celled, spindle-celled, and fibroplastic growths or fibromas, the myomas or muscle tumors, the soft and hard chondromas, the lipomas, myelomas, and the open and compact osteomas. As is well known, two or more of these varieties of sarcomatous tissue frequently exist intermixed in the same growth—an incident referable doubtless to their community of origin and type. Those interesting lower forms of tumor which consist of elements smaller and more single than of the proper tissues—such as tuberculous, gummatous, and inflammatory deposits—are necessarily excluded from special consideration here. Besides this, however, there are found occasionally mixed, thelio-sarcomas—that is, tumors in which some portions have a theliomatous and other portions a sarcomatous structure, or in which these two forms of morbid tissue are in places closely and intimately blended. Seeing that the body itself is so composite an organism, and is descended from all three of the embryonic layers, the occurrence of these (*A plus B*) compound growths need not excite surprise. The primary separation of the germinating membrane of the ovum, whether into two, as ectoderm and endoderm, or into three, as epiblast, mesoblast, and hypoblast, is doubtless of the highest consequence and most essential character. A twofold division is, indeed, a mechanical necessity for any mucous membrane, and is naturally suitable for the foundation of a hollow organism; whilst a third, or mesial stratum, seems almost equally an unavoidable material consequence. But these necessary dispositions are not less wonderful on account of their simplicity; whilst such early, if not actually primal, arrangements would seem to have an obvious fundamental character and force, and to imply a kind of future controlling or hierarchial office and duty. From this point forward each lamina tends to *breed true and keep true*, and the distinction between them as to their constituents and functions respectively is henceforth maintained, and not easily, perhaps never actually, to be broken through. Within each layer the most complicated and yet definite, metamorphic, metabolic, and synthetic tendencies and processes are manifested and realized, but in each these are distinctly and regularly restricted. Definite evolution within them individually is the law for each; whilst the notion that a cross interference occurs, whether affected in a direct manner by simple metamorphsis of the tissue elements or by a process of previous reversion to a common and primitive uniformity of type and office, is difficult of acceptance, somewhat improbable, and, at all events, not proved; nor has it actually been shown that it is from hidden *archaic protoblastic* elements that the requisite varieties of forms are produced in late adult life. Certain elementary epithelial or hypothelial protoblasts may, indeed, be supposed to shape themselves, if needful, into spherical, oval, squamous, polyhedral, columnar, or even ciliated forms; and, indeed, transitional forms of epi-, and hypo-thelium are well known, and even occasional transmutations of forms have been observed. A parallel instance of transmutation is to be seen in the flattening down and disappearance of cilia where the tracheal mucous membrane in the newborn kitten becomes subject to friction opposite the over-lapping cartilages of the windpipe after respiration has been established. In the case of certain theliomas of primary origin, developed on the confines of the epiblastic and the hypoblastic regions of the body, the elementary constituents, though diseased and disfigured, still obey the particular type of the healthy tissue from which they have sprung, and, although conterminous, it must not here be concluded that the one kind of thelial element has been changed by contact, influence, or interactionary metamorphic power exercised upon it by the other. The hypothesis of the action of special antecedently existing *germinal* or *seminal* influence or force, giving rise to these transmutations, is needless to account for them, and in regard to any transmutation of a mesoblastic elementary particle into a resemblance or copy of an epiblastic or hypoblastic element, the cure involves a still more difficult assumption. The further supposition that this effect is possible, either by a preliminary reversionary process, or by an undoing of the metamorphic process, is pure speculation. Direct observation is at fault. Mere deformation of neighboring types of form, together with close contiguity or intermixture with lower ones, may account for appearances which might be attributed to subtle metamorphic change. The actual proof of positive tranformation or interchangeableness is difficult to imagine, and is at present wanting. An approximation in form and character, as seen under the microscope, may obviously be delusive, and the evocation of a germinal or seminal influence of one tissue element over another, or even of traumatism upon one variety of neoplasm is merely speculative, and absolutely without foundation. Further facts and clearer demonstrations may some day be forthcoming. Meanwhile the limitation of the material involved, the definite nature of function, and the rigid exactitude of the evolutionary processes implied in the recently announced theory of Weissmann are altogether opposed to the theory that, when once the three layers of the protoblast are discriminated, any cross action or jumble of development from an epithelial cell to a connective tissue element is probable, or even possible, nor yet between a cancer cell and a round or spindle-shaped sarcoma element. Each kind of morbid growth continues true to itself, but intermixtures of them may and do occur in the highly composite animal frame.

From general considerations, as the foregoing, we may now turn to the examination of what are frequently termed more practical points. Nevertheless, no one part of this important subject is without its close connection with the rest, and those upon which I now wish to add a few short comments exhibit this inter-relationship in the highest degree.

As regards *age*, a sufficient regard, it seems to me, has not been paid to a possible source of general fallacy—namely, that facts are often derived from death records or mortality, without due reference to the *duration* of the disease. A further special fallacy is naturally the great difficulty of ascertaining the real date of the origin of the neoplasm; the fallacy still remains, even if the date of *apparent* commencement be, as is sometimes the case, taken as the starting point. Allowing for this, or even, I believe, without such strict allowance, my own experience would be, not from the fortieth to the sixtieth year, but from thirty-five to fifty as the most frequent period of the onset of the malady.

As regards the influence of *sex*, with which that of special *organisation* is concerned, everyone will admit that women suffer more from true cancer than men; but that if sexual specialities be set aside men suffer more than women, as in the case of cancers of the lips, mouth, and alimentary canal generally. The most reliable numbers drawn from clinical experience are merely the result of so many associated and intervening provocative influences, and can only have approximate relation to the truth. As to special organs, their derivation from one or other of the three embryonic layers has the highest significance, for true cancer largely predominates in the epiblastic and the hpyoblastic organs, as compared with the fully formed mesoblastic structures.

As to *hereditary influence*, it is of undoubted and large significance. *That*, at least, is the personal experience I would here put on record. The idea is old, and, indeed, is itself inherited; and it is faithfully enshrined in the well-known phrase, capable of a physical as well as a moral and social interpretation, "the ills which flesh is heir to." It is noteworthy to observe how its admitted effects are exaggerated and insisted on, or minimised and almost ignored, in view of the different opinions held as to the causation of cancer itself. The constitutionalist inclines to exaggerate, the parasitist to minimise, the influence of inheritance. The absence of evidence of heredity may be due to want of knowledge or the concealment of knowledge on the part of the patient, or to the premature death from accident or other disease of individuals, who yet had a latent proclivity to cancer. On the other hand, the instances on record of multiple inheritance in the members of the same family may be overvalued by some and undervalued by others; though they are certainly of real and grave significance. Hereditary influence most probably enters into the problem of the prevalence of cancer within certain localities or districts in which constant intermarriages probably occur generation after generation, and this may conduce to a special proclivity to the disease in certain self-limited races, as I have myself often observed amongst Jews; and on a larger scale in certain absolutely limited tribes or nations. The difficulties of following mentally an inheritable *materies morbi*, in the shape of a substantive morbid molecule, is not greater than that of assuming the perpetuation of such a substantial modification of a tissue, which must be associated with a proclivity to a certain disease. The student of the almost infinitely little of molecular constituency and of the almost infinite distance and number of unseen stars, and above all the mathematical mind, will find no inherent difficulties in either of these conceptions. But until the cause of cancer itself is known, the nature and conditions of itself cannot be definitely indicated. At present my own impression, founded on experience, is that its influence is larger than that frequently or usually assigned to it. As to the *personal equation* due to original differences in the digestive, assimilative, and secretory functions or the actual metabolism of the body, it is quite incommensurable. So, too, the acquired peculiarities due to the antecedence or co-existence of a phthisical tendency, or any stage of enthetic disease, cannot yet be accurately estimated or even clearly distinguished. In the antagonism between a proneness to phthisis and a liability to cancer I am personally constrained to believe. Here the numerical exceptions seem to me to prove the rule. Again, an apparently increased personal liablility may be really a diminished power of resistance, and *vice versa*; and an apparently positive immunity may be quite accidental, and not due to any constitutional conditions. The alleged increase of cancer amongst our own population at all periods of life, especially at the period of greater liability, and more amongt males than females, involves serious considerations. The disease is now said to prevail more in England than in Ireland; but, on the other hand, it has been pointed out that in the United States it is more prevalent amongst those of Irish and of German descent than amongst the rest of the population. Still, further researches on all those points are required.

The influences due to *social status*, and of the many conditions which accompany wealth or poverty, appear to me, in relation to the actual proportions of the rich and the needy, to be adverse to the well to-do classes. Excess of diet, especially of animal food, used to be said to conduce to cancer; and carnivorous mammalia and birds, especially in a state of domestication, are known to suffer more than the herbivora. The latter, however, are killed earlier, not only for the necessities of the human race, but also for those of animals of prey. Tame and wild vegetable-feeders, as a rule, fall early victims to their predatory fellow creatures. Long-lived domesticated animals, even if herbivorous, suffer from some forms of cancerous disease; and I well remember dissecting and examining a wild hare, sent to my old master, Robert Liston, which had a well-marked, soft adenoid tumor of the mammary glands on the left side of the body, which weighed more than two pounds. The genuine effects of habit and irritation were especially seen in regard to the former use of the clay pipe, and are now shown in reference to the action of tobacco vapors on the tongue and palate. Many instances of both these facts are engraved upon my memory. But I would now add that I have never met with a due inquiry into the effects of chewing tobacco. Is there any peculiarity in the mode of preparing tobacco for mastication and for smoking? Is there any mischievous empyreumatic evolution in the distilling action of the pipe or the cigar? Why did not or does not the use or the abuse of snuff give rise to the development of cancer in the nose—of which I may say that I do not know of a single instance?

Finally, I have to note that the influence of *occupation*, and of its concomitant exposure to the effects of external agencies in relation to the provocation or prevention of cancer, has not been sufficiently investigated, more especially in regard to the continued inhalation or swallowing of vapors, or of minute particles of mineral substances contained in the air which workmen breathe, or the water they drink, or in the dust which lights upon their skin. Especially would I direct attention to the advisability of making an inquiry into the apparently bad or good effects of particular vapors or dust, which might contain zinc, lead, copper, silver, mercury, antimony, or arsenic. This investigation should also extend to the influence of organic vapors or of dust, consisting of living or of dead organic matter.

Lastly, to revert to the real object of all such inquiry—viz., the discovery of the causative agent in the production of cancer from what appears to be healthy tissue—I would urge upon our modern investigators the great desirability of comparing not merely the histological details of cancerous and normal structures, but to attempt a chemical analysis of the same. By a combination of all such methods of research we may ultimately remove the reproach of ignorance on this most common and most fatal disease.—By the late John Marshall, F.R.S., F.R.C.S., in *Lancet*.

MIGRAINE; CLINICAL REMARKS ON HEADACHE.

Severe, more or less persistent, headache in a young man, or one at the prime of life, is often associated with syphilitic infection arising from a gumma or syphilitic meningitis. Another cause of common occurrence is chronic meningitis, due to insolation, or to a local congestion remaining after sunstroke. Such patients are liable, on exposure to the sun, even at ordinary temperatures, to have attacks of severe disabling headache. The next most frequent cause is migraine, or hemicrania, of which the present case is an illustration.

Although in the characteristic form of migraine the pain is confined to one side of the head, yet very frequently it is dull and diffused, and the patient is unable to localize it, or it may extend all over the head, although worse on one side. As you well know, headaches are also often caused by eye-strain and by nasal catarrh.

Migraine is common in young people of nervous temperament, being especially liable to come on when they are overworked. The attacks often commence with some disturbance of vision, hemiopia, or more properly hemianopsia. The patient, looking at his face in a looking-glass, or at anything immediately in front, will be able to see only one vertical half of the object. One-half of the retina being rendered insensible in each eye, so that we have the inner half of the right eye and the outer half of the left eye insensitive, or *vice versa.* When this is the case, only one-half of an object is seen if looked at directly in front. Other patients have spots before the eye, or they complain of weakness in vision. If they try to read the letters become blurred, or slight effort in reading brings on headache. This hemicrania comes on often, following indiscretion in diet; certain articles cannot be eaten without having an attack. I have known of cases where it was due to excessive taking of tea, or indulgence in a small amount of cheese. In others it is produced by greasy articles of food. In such attacks the patient generally wakes up in the morning feeling poorly, and unable to eat much breakfast, and either before, or shortly after breakfast, a dull pain commences in the head, which gets worse and worse during the day, and with it is associated a great deal of depression of the body, and physical powers and digestion seems to be entirely suspended, or to go on very imperfectly. Some time in the afternoon or evening the stomach rejects the food taken during the day, and, perhaps, the day before as well, showing that digestion has been interfered with from want of nervous supply. On account of the prostrationthe patient is generally obliged to lie down and discontinue all brain work, as well as physical labor.

These nerve storms are of two kinds. In one the face is congested; in the other case the patient's face is unnaturally pallid. In one case it will suggest to us that the blood supply of the brain is sufficient but irregularly distributed, and in the other case it looks as if the blood supply to the head was inadequate. In the first case the anæmia would be only local; in certain centres, or in one hemisphere, or in the course of one artery, while in the other case it would be general in all the great nerve centres.

After such a nerve storm the patient will rest for an hour or two, and, after emptying the stomach, generally recovers in a short time, except for a slight weakness which disappears by the next day.

These attacks, as I have already told you, are brought on partly by indiscretion in eating, and partly by mental work. Not always does the same article of food bring on an attack in different patients. The impaired nerve power so weakens the digestion that even ordinary articles of food are not digested.

In the treatment of this affection we must advise the patient to abstain from food which does not agree with him. As the blood supply to the brain is defective in these cases, some stimulant, such as hot whiskey, or alcohol, will often help to prevent an attack which is coming on. In other cases, coffee combined with the whiskey will help, or caffeine given alone. If any undigested food remains in the stomach it will be well to give an emetic and wash out the stomach with hot water. Where the patient is well nourished, and able to take opium, the following may be given:

℞—Tr. opii deodoratæ . . . gtt. x or xij.
(Tr. cannabis indica may be
substituted when opium is
considered objectionable.)
Potassii bromidi . . . . gr. xx,

with two drachms of camphor water. In addition, give some cinnamon or peppermint water to disguise the taste of the combination.

We do not, as a rule, combine anything sweet with bromide of potassium, on account of its salt taste. Antipyrin in gr. x-xv doses also will relieve headache, but is often followed by great depression, or even collapse.

Such a dose, taken and repeated every two hours, will generally ameliorate an attack, and enable the patient to keep on his feet and do a certain amount of work.

As to the treatment between the attacks, it is possible this deranged blood supply may be due to some poisonous product circulating in the blood, the result, perhaps, of infectious dyspepsia and butyric or lactic acid fermentation, to the products of which when carried to the nerve centres this attack may be due. The headache may, on the other hand, be due to defective elimination by the kidneys, or even of some excrementitious matters. In favor of this view is the fact that the kidneys generally act very freely when the attack is passing over, a large amount of limped urine being generally thrown off. Here is a suggestion for our therapeutics, the remedies which increase the eliminative action of the liver and kidneys may prevent recurrence of these attacks. In some cases there may be a congenitally inadequate liver, which, owing to its small size, or some other cause, does not sufficiently purify the blood. It would be well to keep the patient on a vegetable diet in these cases, in addition to paying proper attention to the secretions.

When the kidneys are at fault and acting scantily, diuretics, citrate of caffeine, gr. j or ij, given three times a day, will do well, or it may be combined with gr. xx of acetate of potash given at night. Sweet spirits of nitre, or hot lemonade, with a teaspoonful of gin or whiskey, at bedtime, are also good adjuvants.

When the liver is constantly deficient in its secreting power, succinate of soda in two-grain doses, several times a day, has been used with success, but probably the use of the podophyllin, leptandrin, cascara, and similar cholagogues will prove all that is necessary, if given regularly, with due regulation of the diet.

Such patients should pay especial attention to the functions of the skin, by frequent warm bathing or sponging, and wearing woolen or silk underclothing.—Frank Woodbury, M.D., in *Times and Reg.*

PERINÆORRHAPHY.

I wish to bring before the notice of my gynecological brethren an operation I have designed for the restoration of a lacerated perineum, easy of performance, and which will, when properly executed, form a good perineal floor, and I might almost say practically a perineal body. The patient, having been prepared by the usual preliminary steps required for the old operation when under the influence of an anæsthetic, is placed in the lithotomy position, the left index finger being introduced almost its entire length into the rectum, a long straight double-edged bistoury is made to pierce the tissues in front of the anus at right angles to the vulva, and, guided by the finger in the rectum, is made to penetrate the septum for two and a half inches upwards, the incision being enlarged laterally to two inches as the knife is withdrawn.

The patient is then turned on her side, and on the points of incision being pressed together, a lozenge-shaped opening will be seen, and when all sutures required have been introduced and are properly adjusted and approximated, the two cut surfaces are brought into direct apposition. The sutures are introduced by a strong cycle-shaped needle with eye near point, mounted on a handle, strong silver wire being the suture preferred.

The needle is introduced at edge of incision, and, guided by a finger in the rectum, is to travel under the cut surface to its full depth above, describing the arc of a circle; and on point of needle appearing *directly opposite* it is threaded with suture and drawn through. On the ends of this being drawn together with the fingers, a good idea can be formed of how many original stitches may be required. When all considered necessary have been inserted and approximated, being first passed through perforation in leaden plate (see illustration), a finger of each hand passed into rectum and vagina will at once recognize the gain in thickness of septum, the external tissue being pushed fully an inch forward from anus, and forming a thick and solid perineal body.

The incision being a deep one, on union taking place beween the raw surfaces, a considerable amount of support must be afforded in cases where a pessary is required, or where there is much tendency to prolapse of uterus or vaginal walls. My experience of the operation has satisfied me with the results, and there being *no loss of tissue whatever*, should the operation fail, it cannot add any difficulty to a subsequent one.

Even should the perineum be lacerated to verge of anus, what I describe can be done. I find that leaving the sutures for ten days is generally sufficient, but if I am in doubt as to the union being strong, I cut the wire, but leave it in situ for a day or two longer, thus affording some support and relieving the strain on the edges of suture holes, and I also support the parts by long strips of adhesive plaster carried from hip to hip over new perineum.

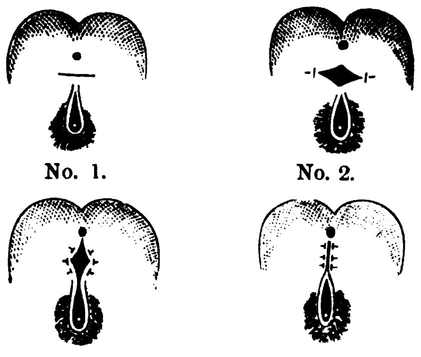
The wire should be stout and not too tightly twisted. My friend, Dr. More Madden, has kindly given my operation a trial, and was much pleased with the result, especially in one of his cases where the old plan of operation had been tried previously but failed owing to the patient's poor state of health and want of healing power. The advantages of my plan of operation are briefly these:

1st. The simplest of performance as yet proposed, no danger of hæmorrhage, the surfaces when dry being brought together.

2nd. No danger of sepsis, as the incision is not open for the admission of any discharge from either vagina or rectum during healing process.

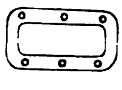
3rd. No loss of tissue, and consequently no harm done should the operation fail.—Alexander Duke, F.R.C.P.I.

STEPS OF OPERATION.



No. 1. No. 2.

No. 3. No. 4.



SPLINT FOR SUTURES.

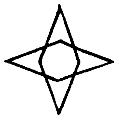


DIAGRAM OF REVERSED LOZENGE,

VOMITING OF GASTRALGIA.—

℞.—Cocain, ...	10
Antipyrin, ...	1.00
Aq. destil., ...	90.00

Sig.—A teaspoonful every one half hour to an hour.

CONCENTRATED FOOD IN THE TREATMENT OF PULMONARY CONSUMPTION.

Calling attention to the importance of nourishing diet in the treatment of pulmonary consumption, is so trite that it barely deserves repetition; yet, old as it is, it is no less true to-day than it ever was. Indeed, it may be laid down as a fundamental proposition, that the cases of consumption which cannot be reached through the instrumentality of food have certainly slim prospects of recovery. It is also no less true on the other hand that if your patient can be made to partake of, digest, and assimilate a sufficient amount of food, it matters little in what condition his lungs may be, he will, with ordinary good management, make a good recovery in the great majority of instances. Failure to get well under these circumstances is the exception. To make your patient eat, then, is the great problem to solve in the cure of this disease, yet every one realizes the enormous difficulties which are constantly placing themselves in our way. Very little can be done to attain this end by only addressing medicines to the stomach. You are required to rise higher than this, and to take a general survey of the whole condition of your patient. In other words, it is absolutely indispensable that you should regulate his exercise, his rest, his sleep, and his eating; in fact, you must have a systematic supervision of all he does during the whole twenty-four hours.

I arrived at the conclusion long ago that a consumptive patient who is fatigued cannot eat. So, his appetite will greatly depend on how much or how little exercise you prescribe for him. If much exercise tires, then less must be taken, and if little exercise tires, then absolute rest must be insisted on. Many of these poor people exercise themselves to death. Digestion, like exercise, requires a certain degree of bodily strength. The strength which is expended in performing exercise deducts so much from the sum total of the bodily forces, and in most cases leaves too small a residuum to carry on the processes of digestion, absorption and assimilation, and is the principal cause of the persistent anorexia. I am well aware of the prevalent impression that exercise is one of the essential promoters of a good appetite, but all you need to do is to ask your patient to give you an opportunity to demonstrate the falsity of this belief by a prolonged dose of rest, and I dare say that a single chance will be sufficient to dispel the allusion. Rest will not only restore his appetite and save his strength, but it will reduce his fever, diminish the cough, and make him feel more comfortable in every respect.

If your patient eats, what kind of food should he have? It is that kind which concentrates a large amount of nutritive material in a small bulk, and which requires a small amount of digestive energy on the part of the stomach and the digestive tract. Such foods exist without question, in the freshly prepared juice of beef, oysters and clams, and they are prepared as follows: Beef, preferably the round-steak, is cut in pieces of the size of a walnut, and is placed in a pan and held over the fire for a few minutes in order to heat the outside slightly. The whole is then dumped into a large Bartlett beef press, and this separates the juice from the fibre. About one and one-half pounds of beef will yield a teacupful of beef juice. This juice, divested of all fat, is well seasoned, and taken cold in half teacupful doses, three or four times a day. In the case of oyster and clam juice, the same process is followed in extraction, and it is likewise taken cold and seasoned. These juices contain the very essence of nourishment, require very little or no digestion, are easily absorbed and assimilated, and may be administered to the most fastidious stomachs. They are very much superior to any kind of beef tea, or extract, that can be made. Additionally, I prescribe five or six glasses of milk a day.

Much may be done in feeding these patients by going about it in a systematic manner. Begin at seven o'clock in the morning with a glass of milk, and repeat the same every three hours. If a whole glass is too much, be satisfied if only half a glass is taken at first. At eight o'clock administer half a teacupful of beef juice. At first this is given three times only, but as soon as possible, four times a day. If desirable, oyster or clam juice may be substituted once during the day for the beef juice. Besides, you must persuade your patient to eat an egg, or oatmeal gruel, with cream and sugar, and bread and butter, and a cup of coffee for breakfast; beefsteak, roast beef, mutton or lamb, with vegetables, for dinner, and a lighter meal for supper. Beer, wine, champagne, whisky, or brandy may also be taken in moderate quantities throughout the day.

Much can be done to stimulate the appetite; for this purpose I often give the following:

℞ Acid. phosphoric. dil.,
Acid, nitromuratic. dil.,
Acid. sulphuric. aromatic.,
Tinc. ferri chloridi, āā fl ℥ ss. M.

SIG.—Thirty drops in half a glass of cold sweetened water during meals.

A coated tongue, which so frequently exists in these cases, is no contraindication to the giving of iron. Additionally, two or three grains of quinine are prescribed in the forenoon and in the afternoon. The bowels must also be kept regular. If constipated, a glass of Hunyadi water, or a Lady Webster's pill in the evening, will generally suffice, or Parke Davis & Co.'s cascara cordial, also serve well for this purpose. Occasionally, a blue mass pill will not be out of place. If there is a tendency to diarrhœa, the above-mentioned acid preparation will often check it. In most instances of this kind, the diarrhœa follows a meal, and is due more to a hypersensitiveness of the alimentary tract than to any other cause. To the acid mixture you may, therefore, add subnitrate of bismuth and pepsin with advantage.

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MEDICAL EDUCATION AND THE STUDENT'S WANTS.

Another first of October has passed and a large number of young men have commenced their medical studies. So important a step as entry into a medical school is apt to make the student, his friends, and even the public forget that his studies are a means, not an end. He must ultimately earn his bread by physic, provided that he satisfies examiners. It may pertinently be asked: Does the education at medical schools fit a man for earning his bread? and do examiners necessarily pass the fit, whilst rejecting the unfit?

That our medical schools do honestly endeavour to give the student a good, solid, scientific ground work of knowledge there can be little doubt. Unfortunately the teachers must above all, pass as many of their men as possible. Hence medical education is too closely associated with passing examinations. In short, the end is partly sacrificed to the means.

Another shortcoming in the modern system lies in the fact that the student will most probably become a general practitioner, whilst his teachers are purely scientific professors or members of the hospital staff. Their knowledge of general practice is at the best indirect. The hospital teachers in many cases is a product of the school where he teaches. Professionally speaking, he may have never stirred from his hospital. He has had a hard struggle, but not of the kind which most of his pupils must undergo. He has been a demonstrator or a registrar, has read papers at societies, and has had to send testimonials to governors—documents which usually inform them that he is "peculiarly fitted" for the appointment which he has afterwards gained, and that he is a "gentleman." Then he has discharged the duties of physican or surgeon and teacher, first in the out-patient department and lastly in the wards. We all know what patience and self-denial are demanded of men who work their way up to leading positions in great medical centres. But they are not in a position to teach the student precisely what is required of the general practitioner. The young qualified man will have to start at once with his patients—provided that they come to him. His teacher has often not so much as thought about patients till he has nearly attained his 30th year. His substantial gains are more often derived from pupils.

The young practitioner must learn human nature, and must not prescribe by rule-of-thumb nasty ready-made mixtures. He may at any moment be called to undersake a serious responsibility far from consultants, assistants, good nurses, and sanitary "homes" for patients. Thus he has to learn much that he has not been taught in his school, and this at his own or his patient's cost.

Lastly, the merited success of many men possessing only the so-called "lower" qualifications suggest that hard examinations sometimes crush common sense, and even discourage perseverance, whilst favoring youths of scientific or literary ability. In short it is clear that something is wanting in medical education. A move in the right direction has been made by the General Medical Council, which has recommended:

"That the fifth year should be devoted to clinical work at one or more public hospitals or dispensaries, British or foreign, recognized by any of the medical authorities mentioned in Schedule A of the Medical Act (1858), provided that of this year six months may be passed as a pupil to a registered practitioner possessing such opportunities of imparting practical knowledge as shall be satisfactory to the medical authorities."

If the spirit of this recommendation is loyally carried out; if students are encouraged by their teachers to take advantage of the opportunity suggested to become really acquainted with the every day detail of general practice, a great gap in our present curriculum will have been filled up.—*Br. Med. Jour.*

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LOCAL TREATMENT OF DYSENTERY.

There seems to be in modern medical thought a very strong tendency to consider disease as constitutional rather than local. I do not doubt but that there are one or more forms of dysentery dependent upon the presence of poisons in the blood, but I feel very confident that the dysentery, as we see it ordinarily in this climate, is essentially a local inflammation, independent of any blood poisoning. If this be true, the disease should be especially amenable to local treatment. It is true that the ordinary treatment, which seems not to be local, really owes much of its efficiency to a local influence. Thus, the purgative acts by a purely local depletion; the mercurial, or the ipecac, by a local stimulation of the glands involved; whilst the bismuth spreads itself upon the mucous membranes and by its local action lessens inflammation. It has seemed to me, however, worth while to draw the attention of practitioners to the value of the direct application of remedial agents to the effected parts.

Many years ago I published a series of cases of chronic dysentery, demonstrating the extraordinary efficiency of forced enemata containing one-half a drachm to a drachm of nitrate of silver dissolved in two or three quarts of water, and further experience has corroborated all that I have said. Indeed, from time to time articles have appeared papers in the medical journals proposing the treatment as both novel and efficacious.

In acute dysentery, involving the colon high up, I have found large enemata, containing two to three drachms of subnitrate of bismuth, much more efficient than the exhibition of bismuth by the mouth. When the symptoms are severe, this local treatment may often be preceded with advantage by washing out the colon with large quantities of cold water. I have never used injections of nitrate of silver in acute dysentery, although the effect of the local application of the nitrate in other inflammations of mucous membranes would justify trial of the remedy. I have seen, in one or two cases, large enemata of very hot water injected without affording relief, and believe that hot water enemata are, in their ordinary results, not at all comparable with large injections of ice-cold water.

When the lower part of the colon is effected, the local use of ice sometimes has an almost marvellous effect. I have, indeed, seen the whole aspect of a very severe and alarming case, in which the symptoms indicated that the colon was effected high up, changed in a single hour by the continuous use of *ice suppositories.* While it is not necessary to have the pieces of ice entirely regular in shape, care should be exercised that no sharp edges are left. The suppositories should be rapidly used, one being put into the rectum every three to five minutes, so as to get, for at least half an hour to an hour, the effect of the continuous application of cold.

When the tenesmus is very severe, iodoform suppositories are often much more efficient than opium in bringing relief.

A remedy which has been from time to time recommended very highly in dysentery, but has not, I think, been much used, is ergot; and when the passages contain large quantities of blood, or are nearly pure blood, the extract of ergot would seem to be indicated. I have never myself used ergot by the mouth in these cases, but have employed suppositories containing twelve grains of extract of ergot and four grains of iodoform, used every two hours until four or five suppositories had been taken with, seemingly, great advantage.

I do not mean to advocate the local treatment of dysentery as a substitute for the use of mercurials, purgatives and ipecacuanha, etc., but as a very important adjuvant to the older forms of treatment. Nevertheless, in my experience, the effect of local remedies has been more prompt and decided than that of drugs given by the mouth; but in cases of any severity the attack upon the disease may be made from each end of the mucous tract.—Prof. H. O. Wood, M.D., in *Univ. Med. Mag.*

THE ORIGIN OF CHOREA.

Chorea bears in many respects a great resemblance, in its outset, course, and general characters, to the group of infective diseases. In man it most frequently follows or accompanies acute articular rheumatism; it generally occurs in children aged from four to twelve years, which is the age at which there seems to be a special predisposition to infective diseases; it generally runs a definite course, and even without treatment tends to disappear after a certain period of time.

These facts led Dr. Pianese to make an examination of the disease from a bacteriological point of view, and he now publishes (*Riforma Medica*, July 14, 1891) a preliminary communication on the subject. After seven months' work, he has come to the following conclusions:

1. From the cervical portion of the cord of a patient dead of chorea he has succeeded in isolating a bacillus, which grows on the usual culture media between 20° and 38° C., develops gas when cultivated in gelatine, grows on bread paste, shows slow movements when grown in a hanging drop, forms spores, and can be stained well with carbolic-fuchsine.

2. Inoculation of this bacillus into guinea-pigs, dogs and rabbits, whether subcutaneous, intraperitoneal, or intravenous, always gave negative results.

3. Inoculation under the dura mater, either of the cord or of the sciatic nerve in six dogs and thirteen rabbits gave a positive result. Inoculations into the nasal mucous membrane of four guinea-pigs were also successful.

4. Inoculation into the anterior chamber of the eye in rabbits succeeded in two out of three cases.

5. In the successful cases the symptoms produced were as follows: A tremor, sometimes general and at other times confined to special groups of muscles, particularly those of the back and shoulder; the animals became extremely irritable, even to trifling disturbance, and cried out when touched along the vertebral column. These phenomena generally appeared twenty-four hours after inoculation, and became more marked in the following days; there next appeared contracture in one or other of the limbs, and the gait became more and more uncertain and difficult; the animals got very thin, and generally died on the fourth day. Guinea-pigs inoculated in the nasal mucous membrane generally died in twenty-four to thirty-six hours; the dogs and rabbits inoculated

in the sciatic, however, recovered completely after presenting during twenty to thirty days a general tremor, with contractures and progressive wasting.

6. In the animals which died after inoculation, bacilli were found only in the brain, cord, and nerves, and cultures could be obtained from these parts.

7. The ganglion cells, especially those of the anterior cornua of the cord, showed changes in their protoplasm quite similar to those met with in cases of chorea.

8. In association with the red blood corpuscles of the vessels of the spinal cord in a choreic patient he found bodies clearly bacillary in nature, some exactly similar to those of the cultures, others apparently being involution forms.

Dr. Pianese is continuing his researches, and hopes soon to be able to bring forward further confirmatory evidence as to the real bacillary nature of the chorea.—*Supp. Brit. Med. Jour.*

SPECIAL HYPNOTICS.

Dr. Phillip Zenner, of Cincinnati, Ohio, writes in the *College and Clinical Record:*

Morphia is most indicated when the sleeplessness is the result of pain, fear or anxiety, or other bodily or mental discomfort. It is one of the surest of the hypnotics, and its sleep comes nearest to the natural one in its refreshing effects. It is specially indicated in anæmic subjects, and is, on the other hand, to be used cautiously in congestive conditions, or where there is cardiac weakness. It is to be avoided in children.

Chloral is perhaps the most powerful of the sleep-producing remedies. On account of its weakening influences on the heart it should not be used for very long periods, and should be used cautiously in cases of weak heart. In small doses it is a very favorite hypnotic, and deservedly so. Usually it is given in combination with the bromides, which increases its usefulness. A mixture of morphia and chloral has an unusually sedative effect.

Paraldehyde is a less powerful hypnotic than the preceding, but does not subject the patient to the danger of habit, nor does it threaten the heart. Its taste, occasional disturbance of the stomach and irritating effects on the bronchial tubes, in cases of bronchitis, are its chief objections. Its usual dose is one drachm, but it may safely be given in four times that quantity.

Amylene hydrate is said to be about equal to paraldehyde as a sleeping medicine, and to have none of the objectionable qualities of the latter, just mentioned. It is given in all forms of insomnia, the dose varying from ten to one hundred grains.

Urethan is a mild and agreeable, but less certain, hypnotic, and is not used very extensively.

Sulphonal has, perhaps, become the most popular of the recent hypnotics. The average dose necessary to promote sleep is from twenty to thirty grains. It is slower in producing its effects than other hypnotics, usually a few hours intervening before drowsiness is felt. This is because the medicine is very slowly absorbed from the stomach. This can be remedied to some extent by having the medicine finely pulverized and administered in a large quantity of hot fluid, bouillon, milk or the like. It will generally fail to promote sleep when the latter is prevented by pain. On the other hand, it is of special value when there is great motor restlessness, in chorea, maniacal conditions and the like. In large doses, when long continued, it is likely to cause a sense of vertigo.

A still newer remedy, and likely to receive equal favor with sulphonal, is *chloralamid.* This is a combination of chloral and formamid, but is said not to have the ill effect of the former, especially not to affect the heart or disturb digestion. Like sulphonal, it usually acts slowly, one to one hour and a half usually passing before sleep is produced. But it seems to have a somewhat more favorable influence than sulphonal in promoting sleep when pain is a disturbing element. The dose varies from fifteen to sixty grains. It is soluble in one and one-half parts of alcohol, or twenty parts of cold water. It should not be given in hot solutions, as it is decomposed by heat.

I will only mention one other hypnotic, *hydrobromate of hyoscine.* This is of special value in motor restlessness and the like. It is most frequently used in cases of insanity, especially maniacal conditions. Ordinarily the dose mentioned is from $\frac{1}{150}$ to $\frac{1}{100}$ of a grain, but it is given in maniacal cases in much larger doses, even as much as one-tenth of a grain hypodermically.

Perhaps I should not close this paper without mentioning some simple suggestions often sufficient in lighter cases of insomnia, and important in all, such as sleeping in a cool room, seeing that the feet and extremities are not cold, having warm, but light covers, not eating heavy meals shortly before retiring (though a light repast is often an aid to sleep), darkening of room and removal of other possible external disturbances. If in addition to all this, the patient retires with the determination and the belief that he will sleep (and the assurance of the physician is often of great aid in this particular), there is considerable prospect of his being successful.—*Pacific Med. Jour.*

IODIDE OF POTASSIUM, in large doses is said to be curative of urticaria.—*Central. f. Klin. Med.*

TREATMENT OF PHTHISIS.

In a clinical lecture, Dr. William Pepper deals with certain points in the treatment of pulmonary phthisis. Inhalations are better than the use of drugs in paroxysms of cough. As an inhaler, he prefers a simple jar with ample cork. Through the cork insert two tubes, have the material to be used placed in the jar, and allow the patient to draw air through the shorter tube.' This apparatus can be made in a portable form by using short bent tubes, corked at each end, in which is placed sufficient of the preparation for one dose. A number of these tubes can be carried in the pocket; when the patient feels that a spell of coughing is coming on, he can open a tube and inhale its contents. A fair prescription for this purpose is the following:

℞—Creasoti,	℥j.
Tr. iodi,	℥iij.
Chlorformi,	ʒij.
Sp. vini rect,	q. s. ad. ℥j.—M.

Sig.—Inhale ten drops.

Carbolic acid can be substituted for the creosote in somewhat smaller doses. Thymol, a highly volatile antiseptic, agreeable in odor, can be tried; tincture of conium may replace the chloroform. Occasionally, for a variety of reasons, a cough mixture may be necessary. Given in syrup form the expectorants are apt to be somewhat nauseating. Dr. Pepper prefers some such pill as the following, which relieves cardiac excitement in case of fever, is rather expectorant, and allays irritation:

R—Ext. opii,	gr. iii-v.
Pulv. digitalis,	gr. xv-xxx.
Pulv. scillæ,	gr. xv-xxx.
Quininæ sulph.,	gr. xxx.—M.

Div. in pil. xxx.

Sig.—One, two to four times a day.

If the squill nauseate, it may be left out. In place of the opium, if it be found to be too constipating, codeine may be given. Constitutional measures which will at the same time favor the appetite, be antiseptic, and help to render the lung a less favorable nidus for the bacillus, can all be added in one prescription, such as the following, which is not unpleasant to take:

R—Creasoti,	gtt. xxxij.
Tincturæ gentianæ co.,	℥j.
Tincturæ nucis vomicæ co.,	ʒij.
Sp. vini gallici,	℥ij.
Glycerini,	℥j.
Vini xerici,	Oj.

Sig.—A dessert to two tablespoonfuls.

—*St. Louis Med and Surg. Jour.*

The Treatment of Aneurism of the Aorta by Potassium Iodide.—Balfour details one case of aneurism of the aorta and makes reference to several others in which most satisfactory curative results were obtained by the administration of potassium iodide. To cure or even to improve an aneurism by the administration of the iodide the patient must not be starved, but must be well fed. The cure is effected by an hypertrophy of the walls of the sac, not by coagulating the blood within the sac, and is interfered with by lowering the nutrition. The iodide may possibly have some effect in producing hypertrophy of the fibrous tissues; indubitably, its most important effect is to cause a permanent lowering of the intra-arterial blood-pressure. To obtain so important a result it is not necessary to give the iodide in large doses. The proper course to pursue is to put the patient in the recumbent posture for several days, so that the normal pulse in recumbency shall be five or more beats lower than in the erect posture. Five grains of potassium iodide (sodium iodide has not the same effect) in some bitter infusion are given every eight hours, the pulse-rate being carefully observed daily at a stated time; after two or three days the dose of iodide is increased to ten grains every eight hours. In this way the dose may be gradually increased until the pulse-rate is observed to rise; then the administration is withheld for a day and the previous dose resumed. As soon as the pulse-rate increases, the benefit ceases and the constitution begins to suffer. But seldom is it necessary or advisable to increase the dose beyond ten grains every eight hours; commonly enough five grains suffice. The maximum of benefit is obtained from a dose just below that which lowers the blood-pressure so far as to cause the pulse-rate to rise. The remedy is administered every eight hours for two or three months. At the end of that time it need be administered but every twelve hours. The length of time the remedy should be continued depends upon the size of the aneurism when the treatment was begun. At least from three to six months are required to make the patient comfortable.—*Med. News.*

Pathological Anatomy of Eclampsia.—In fifteen cases of puerperal eclampsia, Schmorl (*Centralblat für Gynäkologie*, No. 29, 1891) found necroses in the liver in almost every case. He divides them by their microscopic and macroscopic characteristics into hæmorrhagic and anæmic, the first being much the more frequent. In five cases in which the heart and pancreas were also examined, necrotic patches were fonnd mostly anæmic in the pancreas, mostly hemorrhagic in the heart. In the kidneys there was invariably more or less of a degenerative process to be seen in the epithelium, and frequently hemorrhages along the boundary line of the cortex. In almost all the cases hemorrhages could be discovered in the brain, some macroscopic, but most microscopic. Pathological conditions were also found in the bloodvessels. There were numerous ruptures of smaller vessels which the writer ascribed partly to the compression of internal organs by the muscular spasms, partly by the contraction of the vessels themselves which accompanied the convulsions. There was noted, moreover, a separation of the endothelium in goods-sized shreds, which led to embolic obstruction of the vessels. This was also favored by the rupture of small vessels and the entrance into the circulation of parenchymatous cells. There were found not only emboli of liver-cells, as observed previously by Jürgens and Klebs, but also indubitable renal cells, and cells of placental origin in the circulatory system. The presence of these cells not only stopped up small vessels but also gave rise to thrombus formations and consequently to grave disturbance of the circulation. The whole pathological picture, says the writer, points to some poison in the maternal blood. Curiously enough, he would ascribe this poison to the decomposition of the parenchymatous cells within the blood, instead of giving the obviously correct view, that the poison emanates from the fœtal body and is not excreted because the maternal kidneys have become, from some cause, insufficient to do their work of excretion.—*Univ. Med. Mag.*

A RARE HAIR TUMOR OF THE HUMAN STOMACH.—Böllinger (*Münchener Med. Woch.*, June 2, 1891) details a case of rarity and interest as follows: A young woman, aged 17 years, was seen two and a half years before death; she was well preserved and had only the symptoms of a chronic catarrh of the stomach. It had been noticed that she bent forward in a peculiar way, especially at school. In the course of the disease she developed pain in the stomach and vomiting. In the course of the last year of life the patient took only milk, beer and water into her stomach, and that in small amounts. Six months before death the patient was confined to the house. Three weeks before death dropsy of both extremities and ascites developed. One year before death a very hard tumor was found in the gastric region, which was supposed to be a malignant growth. The *post-mortem* showed the stomach and duodenum to be packed tightly with hair. The contained hair weighed *thirty-two* ounces. The pieces of hair averaged six inches in length. The hair was so closely packed that it was scarcely possible to force fluid from the cardiac end of the stomach to the duodenum. As a young child, the patient frequently pulled hair from her head and drew it through her mouth. The mother had never known the patient to swallow hair, and thought she had in later years given up drawing hair through the mouth. The author then quotes a case from Schörnborn, in which he did a successful gastrotomy and removed a mass of hair weighing eleven ounces. Besides these two cases the writer mentions seven others. The tumors were found mostly in patients who swallowed hair. The time consumed in the formation of the tumor varied from ten to twenty-two years. The nature of the tumor was never diagnosed during life before removal. Only one of Schörnborn's lived. The author calls attention to the fact that "hair balls" are not unfrequently found in the intestinal canal of domestic animals.—*Univ. Med. Mag.*

PUERPERAL ECLAMPSIA.—Having made a special study of the question of eclampsia, and having published a pamphlet on the subject in 1888, I wish briefly to lay before you my views on the pathogenesis and treatment of this affection. Normally the elimination of organic waste products is effected (1) by the kidneys, (2) by the liver, (3) by the intestines, (4) by the lungs, and (5) by the skin. The kidneys and the liver are, however, the organs of elimination *par excellence.* When for any reason this elimination does not take place, the organism is poisoned by the accumulation of these waste products which occurs. This intoxication manifests itself most frequently towards the termination of pregnancy, giving rise to convulsions known as puerperal eclampsia. Eclampsia, then, is obviously the result of a "strike" on the part of the organs of elimination, a cessation of function which may be restricted to one of them—the kidneys or the liver, for example—hence the frequency of jaundice and albuminuria in association with this malady; or it may involve the entire apparatus of elimination. From this pathogenic theory we may at once deduce the therapeutic indication. The great thing is to restore the elimination of organic waste products, and there are three principal ways of attaining the object we have in view: purgation by means of jalap or other drastic purgative; diuresis by means of digitalis, milk, water, and the mineral diuretics; diaphoretics, such as the hypodermic injection of the hydrochlorate of pilocarpin or the hot air bath. While we are waiting for these remedies—which take some time to act—to produce their effects, the convulsions may be allayed by anæsthetics (chloroform or chloral). In plethoric subjects one may have recourse to venesection, for the double purpose of securing the elimination of a certain quantity of toxic effete material and of favouring the re-establishment of the circulation normally slowed down by pregnancy. Lastly, delivery must be expedited by every possible means, because pregnancy itself, by the modifications which it causes and maintains, is the virtual cure of the eclampsia. To sum up: the pathogenic theory views eclampsia as the result of a "strike" on the part of the organs of elimination, giving rise to intoxication of the organism. The therapeusis of eclampsia comprises the threefold indication to favour elimination by means of purgatives, diuretics, and diaphoretics, and the threefold indication of sedation by means of anæsthetics, venesection, and by emptying the uterus.—Dr. Auvard, Paris in *Brit. Med. Jour.*

BIRDS AS SURGEONS.—Some interesting observations relating to the surgical treatment of wounds by birds were recently brought by M. Fatio before the Physical Society of Geneva. He quotes the case of the snipe, which he has often observed engaged in repairing damages. With its beak and feathers it makes a very creditable dressing, applying plasters to bleeding wounds, and even securing a broken limb by means of a stout ligature. On one occasion he killed a snipe which had on the chest a large dressing composed of down taken from other parts of the body and securely fixed to the wound by the coagulated blood. Twice he had brought home snipe with interwoven feathers strapped on to the site of fracture of one or other limb. The most interesting example was that of a snipe both of whose legs he had unfortunately broken by a misdirected shot. He recovered the animal only on the day following, and he then found that the poor bird had contrived to apply dressings and a sort of splint to both limbs. In carrying out this operation some feathers had become entangled around the beak, and not being able to use its claws to get rid of them, it was almost dead from hunger when discovered. In a case recorded by M. Magnin, a snipe which was observed to fly away with a broken leg, was subsequently found to have forced the fragments into a parallel position, the upper fragments reaching to the knee, and secured them there by means of a strong band of feathers and moss intermingled. The observers were particularly struck by the application of a ligature of a kind of flat-leafed grass wound round the limb, of a spiral form and fixed by means of a sort of glue.—*Med. Rec.*

A NEW AND VOLATILE ANTISEPTIC FOR THE TREATMENT OF PHTHISIS.—This is another effort directed to destroy the tubercular microbe which Dr. Passerini has proved to be a success! The same experimenter has long endeavored to modify the trichlorphenol, but the odor and irritation to the mucous membrane is always a serious objection to its use. Dr. Tacchim, of Pavia, has now obtained a preparation of chlorphenol which has as much antiseptic power as trichlorphenol, and is free of all the objections against the latter. Chlorphenol is a very volatile fluid, whose vapor is heavier than air. When applied to wounds, ulcers, and discharging glands the improvement is marked. Ozæna, laryngitis, bronchitis, and more particularly tubercular affections, are beneficially affected. Passerini has treated five of the latter cases with the vapor, which being heavier than air, presumably reaches the bronchioles, if not the alveoli, of the lung itself, and he finds that the bacilli rapidly disappear after commencing the inhalations. All the five cases have quite recovered, varying from two to six months from beginning of the treatment, and are apparently well at the present time. The claims put forth are: 1. The inhalation of chlorphenol is easily borne in advanced phthisis, and is convenient in application. 2. No injurious effects arise from its continuous use. 3. Changes in the quality and quanity of expectoration till pus and bacilli disappear; cough is diminished; fever is reduced; appetite and sleep soon return; the weight of the body increases rapidly, and the local improvement is speedily performed. Hence the three conditions, applicability, innocuity, and efficacy are the dominant recommendations of the drug.—*Medical Press.*

LIFE INSURANCE AND SYPHILITIC "RISKS."—Mr. Jonathan Hutchinson has published a paper in the *London Practitioner* on the "Modern Treatment of Syphilis," in the course of which he considers some of the more important relations of syphilis and life insurance. He states that he has recently been requested by a life insurance company to formulate a code of rules for the guidance of its examiners when considering the acceptance or rejection of applicants for insurance who have had syphilis. His advice on this subject was for the most part favorable to the applicants; with this exception, however, that he would decline those persons who, at the time of their presentation, shall be undergoing the active development of secondary symptoms. These applicants, he advises, should be told to wait until these symptoms had disappeared. He based this counsel on the fact that it is always desirable to know how well or how ill the syphilitic patient sustains the specific treatment proper to the second stage of the disease, and also how willing and attentive he may be to follow out the directions of his physician. Mr. Hutchinson holds that an insurance company might make a profitable business out of syphilitic risks accepted in the early stage of the disease and taken at the ordinary rates, for he has found that the threatened life is often a long one. In his experience such syphilitic persons appear quite as likely to attain to length of days as others who have not been syphilitic. In the cases of those who present themselves free from symptoms, but who have the history of a former attack, the advice is that they be not refused, provided that they have not definitely become the subjects of the tertiary lesions of the disease, or have not, owing to idiosyncrasy or inadequate treatment, had a prolonged siege of secondary symptoms. But even among these there are not a few who would be regarded by Mr. Hutchinson as eligible risks at ordinary rates.—*Jour. Am. Med. Assoc.*

ON THE SURGICAL TREATMENT OF IMPERFORATE HYMEN.—My ideas, then, as to the proper method of procedure, are as follows :

1. Warn the husband or friends of the danger of the operation.
2. Give the patient an anæsthetic.
3. Incise and tear the hymen freely.
4. Wash water in at once to take the place of and to wash out the blood and *débris*, and wash until the water comes out clear. Several quarts will be required.
5. Pack the cavity full of iodoform gauze. Use no compression on the abdomen.
6. Stitch the internal and external mucous surfaces of the hymen together.
7. Apply an antiseptic pad to the genitals.
8. Remove the gauze in forty-eight hours, wash out cavity, re-apply gauze.
9. Keep the patient in the recumbent posture for two weeks, and in bed or on a sofa for a week or ten days longer.
10. If symptoms pointing to ruptured or leaky tube, with accompanying peritonitis, set in, open the abdomen, remove the cause of the peritonitis if possible, wash out the peritoneal cavity, and drain. To be successful this must be done early.—J. F. W. Ross, in *Jour. Am. Med. Assn.*

A NEW METHOD OF INDUCING PREMATURE LABOR.—Dr. Schrader, of Hamburg, has published a method of inducing premature labor based on his observation that cold is a greater excitant of the nervous, and consequently also of the muscular, system than warmth. Continuous irrigation at the temperature of 45° Fahrenheit is impracticable on account of the pain it causes, but a cold douche alternating with a warm one can be borne. Dr. Schrader connects a vaginal glass tube by means of a T-shaped piece and the necessary india-rubber tubes to two irrigators, one of which contains the cold and the other the warm water. By allowing now one instrument and now the other to work, cold or warm water may be sent through the vaginal tube into the vagina. Two people are required—the one to fill the irrigators, the other to work the douche. For each sitting about twenty-four litres of cold and half the quantity of warm water at 112° Fahrenheit are required, and the douche has a fall of about one metre and a half. The irrigation begins with the warm current, and before the cold water is turned on pressure is made on the perineum with the vaginal tube, so as to allow all the warm water to run away from the vagina. The same plan is observed before the change from cold to warm, by which means the alteration in the temperature as felt by the patient is always sudden. Each time about two litres of cold and half the quantity of warm water are used. The douche is generally repeated about every hour and a half until labor is active enough to make its continuance probable. Of eighteen women treated by this method exclusively, and four others who were partly so treated, one died of eclampsia twelve hours after delivery, but all the others made a good recovery. The eighteen women who were treated by the douche exclusively had twenty children, of whom fifteen, that is, seventy-five per cent., were alive. These cases required on the average ten douches and a half; in half the number three douches and a half were sufficient.—*Central für Gynak.*—*Med. Rec.*

BORAX IN THE TREATMENT OF EPILEPSY.—Borax was proposed for the first time by C. Folsom in the treatment of epilepsy in 1881. Gowers reported four cases treated with this remedy, out of which in three a cure was obtained. Dr. Dijoud (*El Siglo Medico*, 1913, 1890) has tried it in twenty-five chronic epileptic patients in which the bromides had been used either without success or with no satisfactory results. The duration of the treatment was from four to seven months ; the dose varied from one to six grammes daily. He entirely cured one, and notably relieved all the others, except six. From this it is apparent that borax is able to diminish—in a great number of cases which do not yield to the bromides—the frequency of the epileptic attacks. The dose may, without inconvenience, be carried up to six grammes per day, yet one should be careful to commence with one to two grammes daily, and progressively increase the dose. The following is a convenient form for a one to four grammes dose :

℞—Sodii biborat, pulverizat, . .	1-4.00
Syrup corticis aurant, . . .	30.00
Aquæ destillat, ...	100.00—M.

Sufficient for one day.

Sig.—To be taken in two doses ; one in the morning, and the other in the evening.

When the dose exceeds four grammes per day, one gramme of glycerin should be added for every gramme of borax over four grammes.

In the prolonged use of the remedy Dr. Dijoud recommends the following formula :

℞—Sodii biborat, pulverizat, . .	10.00
Glycerine pur., ...	6.00
Syrup corticis aurant, . . .	94.00—M.

Sig.—To be taken by the spoonful.

—*Journal of Nervous and Mental Diseases.*

EUROPHEN.—This new antiseptic medicament designed to replace iodoform is obtained by the action of iodine upon isobutylorthocresol. Its pharmacolgy and bacteriolgy have been studied by Siebel, and its therapeutic action by Eichhoff.

Europhen is an emorphous, yellow powder, exhaling a slight odor resembling that of saffron. It is insoluble in water and in glycerine, and is more soluble than iodoform in alcohol, ether, chloroform and the oils. Europhen adheres better than iodoform to the skin and to open wounds. and an equal quantity of it by weight, will cover a surface five times greater.

This iodide of isobutylorthocresol is not toxic. Dogs were found to take two or three grammes of it with impunity and the human organism will bear one gramme of it without unpleasant phenomena save a slight feeling of weight in the stomach.

The urine of patients who had absorbed europhen did not contain iodine.

Eichhoff employed it successfully in dressing both hard or soft chancres. He used it as a powder, and also in the form of one per cent. or two per cent. ointment. He furthermore employed it successfully in hypodermic injections of syphilitic patients suffering from the secondary and tertiary symptoms of syphilis. These injections consist of one gramme of europhen to 100 grammes of olive oil, and of this, one-half to one cubic centimetre was injected daily in one dose.

Eichhoff also employed europhen in varicose ulcer and ulcerative lupus as well as in eczema, psoriasis and favus, in all of which it proved to be efficacious.

Ointments containing one per cent. to two per cent. of europhen are as strong as need be used. Five per cent. ointments caused a certain amount of irritation

CASE OF SUDDEN AND UNEXPECTED DELIVERY IN THE ERECT POSTURE.—There being only a limited number of cases of sudden and unexpected delivery in the erect posture on record, the following case is perhaps worthy of mention :

S. D., aged twenty-one, who had previously after a lingering labor, given birth to one child, was recently visiting a friend, when she felt a sensation of giddiness. She therefore left and started on her way home. Having walked about fifty yards, a sudden pain in the abdomen was experienced ; the pain was so acute that she retired to a neighboring outhouse. She had no sooner arrived there than she gave birth to a full-term male child. The child fell headformost on to the stone floor. The fall was broken by the cord, the cord was ruptured, and no hæmorrhage occurred ; the child sustained no injury, not even a bruise being apparent and is still alive (two months after the occurence). The mother walked back to her friend's house and has made a good recovery.

There had been a miscalculation of two months in this case of the probable date of parturition, and the mother had no idea of the cause of the pain until the child fell from her.—E. Hugh Snell, M. D., in *Brit. Med. Jour.*

BRIGHT'S DISEASE.—*The Rev. de Clinic. et Thera.* publishes the following methods for the treatment of Bright's disease :

1. *Classic Method.*—The climateric prescription consisted in the avoidance of dampness and sudden changes of temperature. As to diet, rich or irritant articles of food were avoided, as were also eggs. A pure or mixed milk regime was followed, and such articles as wine, whisky, liquors and beer were entirely prohibited.

2. *Senator's Method.*—All white meats and pork are allowed, and the use of vegetables and starcy articles of food, fruits, fats and milk advised. Senator also recommends the employment of wine mixed with water.

3. *Semmola's Method.*—The author observes the preceding treatment and besides advises the employment of the following solution to be given in the course of twenty-four hours :

℞—Iodide potassium,	15 grains.
Phosphate sodium,	30 grains.
Chloride sodium,	70 to 90 grains.
Water,	20 ounces.

4. *Bamberger's Method.*—Besides a milk diet, tonics and ferruginous remedies are employed. The author highly recommends the following preparation : Pills of perchloride of iron. Of these pills three to six are given per day. Each one contains :

℞—Perchloride iron,	⅓ grain.
Pulv. menyanthe (Buck-bean)	¾ grain.
Ext. gentian,	q. s.

—*Med. and Surg. Reporter.*

THE CAUSE OF ANÆMIC HEART-MURMURS.—Anæmic heart-murmurs have been the subject of various ingenious explanations. The one given by the best text-books for a long time was a morbid condition of the blood, an explanation good as far as it went, but one that did not go very far. Recent investigations make it probable that these murmurs are due to a weakness of the papillary muscles of the heart, by which the curtains of the mitral and tricuspid valves are relaxed and so give rise to an adventitious sound. Experiments show that when in the death of an animal the heart gradually fails, the contraction of the papillary muscles lags more and more behind that of the ventricular wall, and ceases entirely some time before the rest of the heart stops beating. On account of their situation the papillary muscles are the part of the heart wall likely first to feel the effects of a decreased blood supply in anæmia ; corroborative evidence of this theory is found in the fact that in acute anæmia and other conditions of sudden and great weakness, a heart-murmur is often to be detected, which disappears, upon compression of the iliac vessels or abdominal aorta, or upon the administration of alcohol or digitalis to strengthen the heart beat.—*North-Western Lancet.*

THE USE OF PURE BENZOL IN WHOOPING-COUGH.—After some years' experience of the use of benzol in whooping-cough, I can safely say that it effects better results than all the other remedies recognized as useful in this affection. In the adult and child it is of equal benefit. In an infant just now just now under treatment the attacks have been reduced from twenty to thirty in the night to two or three, and whereas when the treatment was begun evidences of bronchitis were present, now the chest is clear and the child able to be taken out of doors daily. All this improvement was brought about in less than ten days. I have administered benzol in whooping-cough, where convulsions and other complications were fast reducing all chances of recovery, with perfect success in a few days. In adults, where pertussis assumes often serious aspects, benzol has proved equally efficacious. Two minims in mucilage are sufficient for a child six months old, and five minims in mucilage on sugar or in a capsule for adults. I am indebted to an article in the *Practictioner* of some years back for information regarding this treatment, and can heartily recommend a trial of it. Whenever the benzol odor is observed in the breath of the patient, then all anxiety as to the result may be allayed.—W. Robertson, M.D., Glasgow, in *Lancet.*

IPECACUANHA IN LABOR.—While the accelerating action of ergot in cases of lingering labor is universally known and acknowledged, there is another drug which, so far as I am aware, is not noticed in works on midwifery, and which yet is capable in such cases of rendering signal service. I allude to ipecacuanha. Not only in cases of rigid cervix, where possibly it might be considered to act in a similar manner to antimony, but in cases of simple inertia, in either first or second stage, it is a potent instigator of uterine contraction. In the course of general practice extending over many years, I invariably carried a bottle of vinum ipecacuanhæ in my midwifery bag, and rarely, if ever, gave a dose of ergot in the first stage of labor. Time after time, on coming to a confinement case where the pains have been feeble and inefficient, or had totally ceased, two or three 10 or 15-minim doses of the wine at intervals of ten minutes, have been followed in a surprisingly short time by energetic uterine action, with a rapid termination to the labor. It never produces the quasi-tetanic contraction so often met with as the result of ergot, the pains continuing to recur regularly, just as they do in natural labor, but with greater force and at shorter intervals. Conviction of the value of the drug for this purpose induces me to give my experience of it, believing that its merits will be recognized by any who choose to give it a trial.—Drapes in *Brit. Med. Jour.*

GONORRHŒAL RHEUMATISM. — In a discussion on the treatment of gonorrhœal rhuematism at a meeting of the Paris Société de Dermatologie et Syphiligraphie on May 14th, M. Jullien said that, having regard to the infectious origin of the disease, he had for the last five years systematically treated it with subcutaneous injections of bichloride of mercury with extremely satisfactory results. M. E. Besneir pointed out that joint inflammations of gonorrhœal origin often spontaneously underwent rapid modifications, which may be very difficult to judge of the effect of particular remedies. In his experience, local treatment was the most important therapeutic factor in such cases, and he placed most reliance on the method recommended by M. Lucas-Championnière, which consisted in touching the parts in a number of places with the point of the cautery, and then wrapping the joint in Vigo's mercurial plaster, with cotton-wool dressing afterwards. M. du Castel said he had tried mercurial friction in one case without result, while in another case, in which, however, the inflammation was less severe, it had done a great deal of good.—*British Medical Journal.*

DIETETIC TREATMENT OF EPILEPSY.—Whether the theory of the explosion of nitrogen in the brain substance as the cause of the epileptic seizure be true or not, certain it is, according to John Ferguson, that the malady is aggravated in patients subjected to nitrogenous diet. This fact seems to have been confirmed by clinical experience and actual expermentation. Ferguson, therefore, acting on the strength of such a fact, has subjected his epileptics to a strict vegetable diet, and has even dispensed with the use of drugs. This method has given, in his hands, excellent results, especially in well-marked cases of status epilepticus. In these cases a non-nitrogenous vegetable diet alone has rendered better service than the bromides, with restriction in diet.—*Therap. Gazette.*

PAINLESS CIRCUMCISION.—Dr. W. G. Overall, in the *Med. Record*, gives the following as his method of circumcision. Apply a rubber band around the penis half an inch back of the corona, in order to limit the effects of the cocaine. Place a pillow on the patient's chest to prevent his seeing the operation; then, with a small blunt-pointed syringe, inject a few drops of freshly prepared thirty per cent solution of cocaine into the preputial orifice. Hold the end of the prepuce with the left hand, to prevent escape of the fluid, and with the right hand force the latter to come in contact with the entire mucous membrane. Hold the prepuce in this manner for five or six minutes, when the membrane will be anæsthetized. Now inject the necessary amount of the solution into the tissues of the foreskin, taking care that the needle is passed through the mucous layer instead of through the skin, pain being felt if the latter procedure be adopted. The operation can be carried out in this way without the slightest sensation of pain being felt. Absorbable sutures should be used.—*Med. Brief.*

NEURITIS DUE TO POISONING BY ARSENIC.—Dr. E. G. Cutler, in the *Boston Med. and Surg Jour.* reports a case of neuritis due to poisoning by arsenic. The patient was in the habit of placing in his mouth a number of green paper labels—which were proven by analysis to contain arsenic—in connection with his employment. The earliest symptoms were numbness and pricking of the fingers, with weakness of the right hand. The weakness in a few days extended to the other limbs, and was accompanied by general soreness and cramps in the calf muscles. The grasp was feeble and the gait shuffling; knee-jerks absent, superficial reflexes weakened; no dyspepsia or urinary trouble; bowels rather constipated; no headache or disturbance of vision. The patient recovered under the administration of iodide of potassium, sponging with salt water, and subsequent daily rubbing with ice.—*Pract.*

CHRONIC RHEUMATISM.—The clothing of the patient must be attended to. It is essential that flannel should be worn next the skin. The Jäger underclothing is very good. The diet should be nourishing, and, if stimulants are required, a little whiskey is, perhaps the best. The internal treatment adopted is very various. I have found the following prescription most useful:

℞—Pot. bicarb., ...	gr. xv.
Pot. iod., ...	gr. iij.
Tr. hyoscyam., ...	♏ x.
Spt. chlorof., ...	♏ v.
Inf. gentian., ...	f ℥ss.—M.

Sig.—Ft. haustus, ter in die.

In strong adults, a few drops of vin. colchici is beneficial. I have seen good results from three-grain doses of salicylate of soda three times daily. Gaiacum is very useful in some cases.

NAPHTHALINE AS A VERMIFUGE.—According to Dr. Mirovich, of Bielsk, naphthaline is an admirable remedy not only for ascarides, but for tapeworm. He considers it much more certain and far less poisonous than most of the other vermifuges. For grown-up people he prescribes a fifteen-grain powder, to be followed immediately by two ounces of castor oil. For two days before this dose the patient is directed to live on salt, acid and highly seasoned food, then the naphthaline is given fasting early the following morning. In the case of children, naphthaline may be mixed with castor oil, flavored with a drop or two of bergamot. In all the cases in which this plan was carried out, including some in which more ordinary means had failed, the whole tænia was expelled with its head after the first dose.—*Lancet.*

IODOFORM IN THE TREATMENT OF BURNS—Rottenberg (*Ther. Monatshefte*), advocates the following method of treating burns. He is surgeon to large ironworks, and sees many cases of all degrees of severity. The blisters, are pricked, and a silk thread soaked in corrosive sublimate solution run through them, and allowed to remain. The whole surface, no matter what the degree of burning, is coated thoroughly with a thick layer of vaseline containing 10 per cent. iodoform, and then covered wlth guttapercha. The ointment is renewed daily. The pain is always very speedily lessened, and healing takes place in an eminently satisfactory manner, and quickly.—*Supp. Brit. Med. Jour.*

ADMINISTRATION OF ANÆSTHETICS TO CHILDREN.—Dr. Ness, in a discussion published at a recent date in the *Glasgow Medical Journal*, reports 1,000 cases in which anæsthetics were employed at the Hospital for Sick Children. In all these cases careful notes were, and there were at least a thousand more of which no record was kept. Chloroform was almost invariably used, ether being employed only in exceptional cases. No death has ever occured during the administration of an anæsthetic. The mode and details of administration were not given.—*N. Y. Med. Jour.*

IN PRAISE OF WOMEN.

O woman, in our hours of ease
Uncertain, coy and hard to please,
When pain and anguish wring the brow,
Then none so cheaply pleased as thou!
We've only to submit to take
Hot rhubarb tea and anti-ache,
And gizzard oil and ipecac,
And porous plasters on the back,
A flaxseed poultice, catnip tea,
And Quackem's pet discovery,
Hot water bags, and sweats besides,
And camphor nasally applied,
And castor oil and vaseline,
And coals with feathers burnt between,
And soothing syrup, paregoric,
Cold water cloths and drinks caloric,
And all the housewife's category—
'Tis then we see her in her glory,
Needing, to make her bliss complete,
But mustard plasters on our feet.

—*C. F. L. in Harper's Bazar.*

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A FEW CAUSES OF ALBUMINURIA.

We have come to look upon the presence of albumen in the urine of non-puerperal persons, as of much less importance than did medical men one or two decades ago. Current medical literature abounds with discussions on the significance of the symptom. Especially has the question been mooted as to whether a slight, transient, or even recurring albuminuria, should prevent insurance companies issuing policies to persons so affected. This question is not definitely settled, but the general opinion of pathologists seems to be that, while such an expression as physiological albuminuria is a contradiction of terms, yet we may have an albuminuria without any apparent lesion of the kidneys, or other organic disease, and that such condition is not at all a menace to life, and is quite amenable to treatment. Six causes have been, so far as we know, assigned for this condition of things. First, in persons who are suffering from oxaluria, in which case, it has been suggested, that the albumen is derived from the mucous surfaces of the urinary passages being torn and scratched by the sharp edges of the crystals. These persons are profoundly depressed, are more or less dyspeptic, and are greatly benefited by the administration of one of the mineral acids, notably nitric, or nitro-hydrochloric.

The second class comprises the lithæmic type, which usually occurs in children who are over-fed, especially with solid food and with an insufficiency of water or other fluids. It is also noticed in adults who have a tendency to gout or rheumatism, on too heavy feeding. The treatment in this class is obvious.

The next group is what is described by some writers as paroxysmal albuminuria, but for which a better name would be hæmoglobinuric. In this condition, instead of a true hæmoglobinuria, with its red colored urine, caused by the presence of the red coloring matter of the blood being dissolved from the red blood corpuscles, and its subsequent transmission to the urine, we have albumen passed. It is caused often by sudden exposure to cold, as by the patient taking a very cold bath.

A fourth class is what Dr. Goodhart calls *neurotic* albuminuria; out of a list of thirty-nine cases, seventeen were placed in this class. The theory of causation is the exhaustion of the higher brain centres from work and worry; the lower centres lacking "the inhibitory influence of the higher centres fall into a turbulent condition," the result of which is an intermittent discharge of albumen—a condition "analagous, perhaps, to the flushing of neurotic women." This seems delightfully vague, but is perhaps as clear an explanation as can be given in a few words, of a condition that undoubtedly exists in over-wrought, nervous subjects, and others suffering from neurasthenia.

Another group which the same author classes as extra-renal albuminuria, is that in which the albumen is derived from the genito-urinary passages, as from leucorrhœa in women, and from gleet or other venereal discharge in men, or indeed from seminal fluid or prostatic secretion. This class can hardly belong, in the proper sense of the term, to the albuminurias, and yet must be taken into account in any careful examination of the urine.

Another, and more important group, consists of those cases in which the discharge of albumen is due to the action of drugs on the renal secretion. Thus digitalis, causing a temporary contraction of the renal vessels, has been shown to produce a transient albuminuria, acting in a similar manner to ligature of the vein. Poisoning by strychnia acts in a manner similar to digitalis; cantharides, by producing congestion of the kidney and alterations in the glomeruli and convoluted, and, eventually, in the straight tubules. The tension of the blood is markedly increased, and the liquid constituents of the blood pass through the vascular walls and carry with them granules, red and white corpuscles.

Mercury, when ingested for a long time, seems also to produce in persons with apparently perfectly healthy kidneys an albuminuria, though it might be interesting to know whether it is really the drug that is at fault, or the disease for which the mercurial course is prescribed. Lead and opium are the two other important drugs which are credited with this evil influence upon the renal secretion. The latter drug, when persistently used in large quantities, has been noted as producing a chronic discharge of albumen which eventually ended in uræmia.

As to the question of this latter class being truly functional, there is no doubt that cantharides produces transient structural changes in the kidneys, while all the heavy metals in the process of their elimination by the kidneys, if they have been thrown into the circulation in large quantities, also produce—by irritation—changes in the glomeruli and tubules.

Among the more common diseases which produce transient albuminuria, may be mentioned croup, diphtheria, typhoid, erysipelas, intermittent fever, pemphigus, acute pneumonia and scarlatina.

From a consideration of the above facts, it will be seen that in placing an albuminuria in its proper place as regards etiology, and in coming to a conclusion as to its probable effect upon the patient's future, the physician must take a wide survey of all the attending circumstances, and keep the patient for some time under close observation lest a serious error be made as to prognosis and treatment. There can be no doubt that hundreds of quite healthy persons are annually rejected by insurance companies, because of transient and functional albuminuria, thereby entailing much worry and loss, not only upon the unsuccessful applicants, but also upon their families and friends.

FRIEDRICH'S ATAXIA: ITS RELATION TO THE CONDUCTING PATHS IN THE SPINAL CORD.

At the Congress of American Physicians and Surgeons, Dr. David Inglis, of Detroit, read a paper upon the above subject before the American Neurological Association.

He reports, in brief, a case of Friedrich's ataxia in a boy of six years of age, in which the symptoms conformed accurately to Friedrich's own summary of the characters of the disease, viz., "Impairment in the combination and harmony of movements, developing gradually, and spreading from the lower to the upper half of the body, and always involving finally the organs of speech. Sensibility and the functions of the special senses and of the brain being intact, paralysis of the sphincters and trophic disturbances are absent. Less common phenomena are curvature of the spine, sensations of vertigo and nystagmus. From a clinical point of view we must regard the disease as a progressive paralysis of the faculty of combination of movements."

A review of the thirteen recorded autopsies shows a practical agreement that the pathological condition underlying the disease consists in a progressive sclerosis which always effects the column of Goll, the column of Burdach also, but not so completely, the direct cerebellar tracts with Clarke's column in most cases, and the crossed pyramidal tract in some cases, but the sclerosis is here not so intense. We have to deal with a disease of the tracts which degenerate upward, which are usually looked upon as centripetal, and as conveying sensory impulses.

Authors contend that the symptoms of Friedrich's ataxia afford a demonstration that these tracts do not convey sensory impulses upward, for sensation is not impaired, but that they are the main tracts for the conveyance of co-ordinated motor impulses downwards; that their anatomical relations with the medulla, cerebellum and mid-brain, as well as the facts of Friedrich's disease, agree in showing them to act to co-ordinate motor impulses of the mid-brain, cerebellum and higher and lower levels of the cord.

The facts of embryology strengthen this theory; at the end of the fœtal life, at a time when the pyramidal tracts are undeveloped, the posterior columns and direct cerebellar tracts are complete. Their function evidently begins at once after birth. When we remember that the new-born infant is characterized, not by voluntary control of its muscles, not by accuracy of sense perception, but by an extensive co-ordination of involuntary motor functions, the conclusion is easy, that these, the only tracts fully developed at birth, subserve these purposes.

The direction of Wallerian degeneration is not necessarily the same as the direction of normal physiological impulses in any given nerve tract.

THE NEW HYPNOTIC: SULPHONAL.

Sulphonal was first discovered, says the *New England Medical Monthly*, by Professor E. Baumann, of the University at Freiburg. Its physiological actions and clinical uses were first examined by Professor Kast, who is also a member of the medical faculty at Freiburg University.

Sulphonal has been found to be a reliable hypnotic which has none of the peculiar effects of the narcotics on the nervous and circulatory systems. It has no injurious secondary effects, and may be taken in the proper doses with impunity in order to produce natural quiet sleep.

It has another great advantage which is of considerable practical importance, viz.: its absolute freedom from taste and odor.

This new hypnotic has been tried quite extensively during the last twelve months, and very favorable results are reported by various observers.

Professor Kast, of Freiburg, published the results of his experiments in the *Berliner Klinische Wochenschrift*, No. 16. He gave the drug to 20 healthy persons, after having convinced himself of its relative harmlessness by experimenting on dogs. These had demonstrated a decided physiological action on the gray cortex of the cerebrum, inducing sound, natural sleep, without any disagreeable after affects. The dose usually employed was 2.0 to 3.0 Gm. (30 to 50 grains.) Healthy persons would feel tired and sleepy after its administration, but only a minority of the whole number experimented upon (20) would actually fall asleep and remain asleep for a number of hours. Then sulphonal was given to more than thirty hospital and private patients, about 120 single observation being recorded. Nervous sleeplessness, due to neuroses or psychoses, insomnia accompanying acute febrile diseases and sleeplessness of old age where principally selected for the purpose.

Almost without exception sound quiet sleep was produced from within thirty minutes to two hours after the administration of the drug. No untoward symptoms were observed on awakening, the sleep being as refreshing as if it had been due to natural causes. Pulse, respiration and digestion were not interfered with. The average dose was 30 grains, 15 grains being sufficient for women, while men occasionally required 45 grains.

Another remarkable feature is mentioned by Kast: that no tolerancy is established towards the drug. Its action is the same after many doses have been taken by the same individual as after the first dose.

Similiar observations were made by Dr. G. Rabbes (*Berliner Klinische Wochenschrift*, No. 17): he administered sulphonal 220 times to 27 patients suffering from various forms of insanity, —*e. g.*, melancholia, mania, general paralysis, etc.

No untoward symptoms are produced, not even when larger and repeated doses are administered, —*i. e.*, 60 grains, changing off in short intervals with 30 or 45 grain doses. One patient took one ounce in six consecutive days. Rabbes never saw digestion, respiration or the heart's action unfavorably influenced by sulphonal, and therefore warmly recommends its use.

If given several hours before bedtime sulphonal will produce sound, uninterrupted sleep.

◆

EXCISION OF THE APEX OF A TUBERCULOUS LUNG.—*La Gazetta Médica de Granada*—*Med. Rec.* reports a case of the successful excision of the apex of a tuberculous lung by Dr. Tuffieri, who, prior to the operation, had satisfied himself of its safety by a series of experimental operations on the lower animals. Cutting through skin and some fibers of the pectoralis major, Dr. Tuffieri laid bare the intercostal muscles of the second intercostal space, and cutting through these he exposed the parietal layer of the pleura, which he detached from the thoracic parietes. Opening the pleura, he found the lung apex studded with tubercle and slightly shrunken. Round the apex he passed a ligature, which he attached to the second rib, and then excised five centimetres of the tuberculous mass. The patient was, on his recovery, exhibited before the Surgical Society.

SOME FALLACIES IN GYNÆCOLOGY.—The following rather sweeping statements from the *Times and Reg.*, taken with a grain of salt, will be read with interest by some of the younger members of the profession, and perhaps by some of the older ones, too:—The pessary fallacy is a most pernicious one. The pessary craze still has a firm hold, not only upon women, but clings tenaciously to a majority of the profession. There are some cases where a well adjusted pessary serves a good purpose as an adjunct to the cure or promotion of the comfort of the patient, but the indiscriminate, unscientific, and, perhaps, criminal use of pessaries by amateur gynæcologists and physicians experienced in general practice, but unskilled in gynæcology, is only mentioned to be condemned in the strongest terms. Another fallacy is "the ulceration of the os." This disease exists, in the majority of cases, only in the mind of the physician. Laceration of the cervix does not necessarily require an operation for its cure. Experience has taught Ferguson that the great majority of cases of laceration of the cervix can be cured without subjecting the victims to dangerous operation. During the past year he has operated on but one laceration of the cervix; during the same time a dozen have been cured by other treatment. The "change of life" is not necessarily a period of peculiar peril and intense suffering as is often supposed. If a woman has good health and no organic disease of the reproductive organs, she will suffer nothing more at this period than slight nervous symptoms, such as flushes, slight headaches, etc., the results of vaso-motor disturbances. If she has pain or hæmorrhage, or profuse leucorrhœa, singly or combined, it is almost certain she is afflicted with organic disease, as cancer, fibroid tumor, endometritis, salpingitis, or ovaritis. During the past year four women who were supposed to be suffering from "change of life" have passed through the hands of Ferguson, and three of them are now dead from cancer. A fallacy of firm hold in the minds of many is that pruritis vulvæ is frequently a neurosis—that is to say, that it is of centric origin without any lesions of structure, or accompanying affections to account for it. Where uncleanly habits of the patients are not the cause, the trouble can be traced to some disease existing in the vagina, the uterus, or the bladder. These are only a few of the numerous fallacies.

Though not practicing gynæcology as a specialty, we *have* known pessaries to give relief, even when introduced by our unskilful hands, and are persuaded that ulceration of the os is not entirely a dream. All the same, we are with the writer in thinking that pessaries and ulceration of the os have been run to death.

ARISTOL, one of the most recent additions to the dermic remedies, occurs in the form of a brownish, amorphous powder, and is an iodide of thymol. Both of these drugs have been used extensively, and now the reports indicate that by their combination a medicament has been produced which bids fair to supersede both iodoform and iodol, although the claims with reference to its antibacterial properties which were first advanced have not been demonstrated. In the treatment of diseased structures, ulcers, wounds, and as a topical dressing, it is used in the form of a powder or ointment, but should not be combined with starch, caustic alkalies or carbonates, or in fact any substance which has an affinity for iodine. When it is desired that the remedy should penetrate the tissues to which it is applied, it would be well to combine aristol with lanolin, as by this means the moisture of the tissues would be absorbed, thus permitting the medicament to come into direct contact with the diseased structures. Aristol is now enjoying a deserved popularity with surgeons and gynæcologists, and is highly prized by those specially engaged in the treatment of cutaneous and venereal diseases.

IN the *Alabama Med. and Surg. Age*, Dr. Cunningham reports the case of a mulatto woman delivered of a monstrosity. A cut is given, that shows the resemblance to a dog to be so strong as to render the explanation given inadequate. This is, that while the woman was "breeding," she was frightened by an opossum. We should be more inclined to think there had been a "coon" around.

ABOVE THE COMMON HERD.—Robert Louis Stevenson says:—"There are men and classes of men that stand above the common herd; the soldier, the sailor, and the shepherd not infrequently; the artist rarely; rarer still the clergyman; the physician almost as a rule."

THE TREATMENT OF ACUTE EFFUSION INTO THE KNEE-JOINT BY TAPPING.—Owen (*Practictioner*, *Am. Jour. Med. Sciences*) has treated a number of cases of traumatic effusion into the knee-joint by means of paracentesis, and has met with such satisfactory results that he indorses this procedure in all such cases.

An ordinary hydrocele canula should be employed, the operator fulfilling all the requirements of antiseptic surgery. The treatment does not differ whether the fluid is blood or sero-synovia. If the joint has begun to swell directly after the injury the distending fluid must necessarily be blood. If, however, one or more days have intervened between the hurt and the swelling, the fluid has been poured out by the inflamed synovial membrane.

The puncture is made on one side of the patella. Just as the fluid has ceased to flow through the canula the latter should be blocked by the finger and withdrawn. This prevents the introduction of air into the joint. The skin puncture is covered by a scrap of lint dipped in collodion or by a little pad of dry wool. The knee, together with the upper part of leg and the lower half of the thigh, is then enclosed in short splints or a plaster-of-Paris bandage, being fixed in the extended position with the foot slightly raised. The site of puncture may be rendered anæsthetic by the application of ice and salt.

The first reported case entered the hospital some hours after the infliction of a severe bruise of his right knee. The joint was greatly distended. It was put to rest and an ice-bag was applied. On the following day the patient was suffering from great pain and could not bend or straighten the knee. The trocar and canula were thrust into the joint ; blood and synovia spurted out for some distance on withdrawing the trocar. Two and a half ounces of liquid were drained out. The small puncture was dressed with a pad of absorbent wool, and a plaster-of-Paris cast was applied reaching from a short distance above the malleoli to the middle third of the thigh.

Immediately on withdrawal of the fluid the patient experienced relief and vigorously flexed and straightened his leg. He was discharged on the fifth day still wearing the plaster splint.

A number of other cases are reported in which the results were equally satisfactory.

CHRONIC ARSENICAL POISONING FROM COAL.—The force of these observations is less in this country, where much less coal is burnt in open grates and fire-places than in Britain, and yet the fact that arsenic may be diffused in the air we breathe is worthy of note even in Canada. When coal is burned it is roasted out and it is the only product of the coal which is at first volatile and afterward non-volatile. A part of the smoke that goes into the air is arsenious acid mixed with carbon, and a large part of it lodges in the chimneys. Now, take a city like London, or any of the great English cities where coal is burnt very freely, there the quantity of arsenious acid that is given into the air must be very considerable, and it would be interesting to make comparative tests of the urine of persons in a city like Boston and in a city like London. The English coal is very bad coal in this respect. Every ton of coal burns off about twenty to forty pounds of sulphur. That sulphur is transformed into sixty pounds of sulphuric acid, which has left its stain upon every marble building in London. I speak of the sulphur because the sulphur is largely accompanied by arsenic.

PHENACETINE IN SCIATICA.—Sciatica is not only one of those affections which are extremely annoying and painful to the patient, but on account of its persistency often greatly tries the patience of the physician. At the Clinic of Prof. Landon Carter Gray most benefit has perhaps been obtained from phenacetine, given, say, in tablets of four to eight grains every three or four hours. There are a good many cases, however, which do not respond to it very markedly. Doubtless, too, there are many cases of sciatic neuritis, rheumatism, gout, etc., in which a diagnosis of sciatica is erroneously made ; but perhaps more frequently sciatica is mistaken for one of these affections.

ARISTOL IN ATROPHIC RHINITIS.—Dr. W. C. Braislin (*Brooklyn Med. Jour.*), recommends the use of aristol in atrophic rhinitis. He applies it by means of an insufflator, after the scabs and discharges have been cleansed, or washed away. It is germicidal and mildly stimulating in its action, and forms a sort of dry antiseptic dressing under which granulation seems to proceed with extraordinary rapidity.

No Doubt of the Diagnosis.—The following humorous description (Western *Med. Rep.*) will be read with appreciation by all who have gone through it:—Nature with a lavish hand has endowed the human body with no less than s'teen million of spots to which an ache or pain can be attached. When each one of these spots, both inside and out, is filled with a hard platinum-tipped pain; when your head aches so that you are conscious of all the ruffles and scallops on your brain, just as you see them in the pictures in your physiology; when your heart thumps and your stomach wobbles and you have the feeling that something is wallowing through your inside works; when your sternum feels stove-in and there is an uneasiness under your shoulder-blades as though your wings were beginning to sprout; when you are one moment alive to the finger tips with thinking of the things you must get up and do, and the next completely exhausted by even the thought of doing them; when your back-bone has the sensation of being twisted by a monkey-wrench; when you are so dizzy that you can't see, and your ears ring and eyes water and your nose is in such a state that it is presumption to lay aside your handkerchief for one short minute; when you cough and sneeze and groan in turn—in fine, when you feel like the very deuce—you can set it down that you have the grip.

The Treatment of Chronic Eczema by Creolin.—In a paper read by R. Glasgow Pattison, of Dublin, before the Royal Academy of Medicine in Ireland, he gives directions for the use of creolin in chronic eczema. He states that the best strength is that of one drachm of creolin to eight ounces of water. In this proportion it forms a soothing emulsion which has a marked effect in allaying the itching and irritability. The mode of applying it must be modified to meet individual cases.

The parts affected must first be freed from crust or other accumulation, and then be bathed in the fresh emulsion for from ten to fifteen minutes. If there is much secrction, lint soaked in the liquid may be applied over all parts and retained in place by dressings; but if the eczema is of the squamous type, treatment in the intervals is best carried out by means of ointments. Under this treatment we have recently had cases recover with astonishing rapidity.

For Sciatica.—Dr. Starr, in his work on Nervous diseases, gives the following as having proved useful in his practice, in the treatment of sciatica. Anything that holds out a hope of relief in this *bête noir* of the profession, may be welcomed:

℞—Tinct. colchici, ... ♏ ¾.
Tinct. cimicifugæ, ... ♏ ¾.
Tinct. aconiti, ... ♏ ¾.
Tinct. belladonnæ, ... ♏ ¾.—M
Sig.—One dose.

Again, Dr. S. J. Corbett, of San Frnncisco, writing to the *Med. World*, says: If Dr. E. H. Carlton wishes a remedy for sciatica that will relieve all cases and cure 80 per cent., I will call his attention to a remedy which I have used for twelve years, and one on which I depend in all cases.

If the patient is a lady of weak, nervous temperament, write this prescription:

℞—Ol. tiglii, ... gtt. j.
Pulv. lycopodii, q. s. ft., capsule No. 2.
Sig.—Take one capsule at 8 a.m.; the other at 2 p.m.

If the case is one of true sciatica, *i.e.*, congestion of sheath of nerve, the relief will be complete in twenty-four hours. If it is a case of rheumatic sciatica, it will be relieved but not cured.

If the case is that of a strong robust man, write,

℞—Ol. tiglii, ... gtt. iij.
Pulv. lycopodii, q. s. ft., capsule No. 2.
Sig.—Take one capsule at 8 a.m.; the other at 4 p.m., if the first has not operated fully.

I have practised medicine twenty-three years and have treated many cases of sciatica with all kinds of remedies, *i.e.*, hypodermics, blisters, hot and cold applications, electricity (both galvanic and Faradic currents), sun baths with all the different colored glasses, etc.; but I have found that the little drop of croton will get away with all the other remedies combined. By inducing immense watery discharge from the bowels, it relieves the congestion and thus cures the patient.

Faradization in Incontinence of Urine.—Dr. Jamin reports (*Med. Rec.*) a case of incontinence in a girl aged fifteen, where internal medication had failed of any result, in which a complete cure was obtained by faradization of the urethra—the negative pole in the urethra, and the positive on the thigh.

Permanent Catheterization of the Ureters.—This procedure seems practicable, as the following, from *Univ Med. Science*, goes to show :

MM. Albarran and Lluria, at the last meeting of the Sociètè de Biologie, reported that having tried their method on the cadaver, they had operated upon a dog and placed a catheter in each ureter, which the animal retained without any inconvenience. Professor Guyon recently performed a supra-pubic cystotomy on a young girl who had chronic cystitis ; he introduced catheters made after the author's model, in both ureters, which performed their functions very satisfactorily for four days. The urine from one kidney was purulent and that from the other was perfectly clear; it came out drop by drop externally, and was received in two sterilized vessels. The bladder could then be curetted and dressed like an ordinary wound. The patient did not suffer in the least.

Phenacetine in Rheumatism.—The Berlin letter in the *Med. and Surg. Rep.*, for April 12th, contains among other good things a statement of Dr. Collischon's success in the treatment of acute articular rheumatism with phenacetine. Twelve grains should be given four times a day, or thirty grains twice a day. After the pain has disappeared it is advisable to continue the drug in small doses, It is similar to salicylic acid, inasmuch as it acts best in cases of marked febrile type while it is useless in muscular cases ; and in the necessity for the use of large doses. On the other hand it does not possess the disagreeable after effects of salicylic acid.

Treatment of Condylomata. — Dr. G. Finco (*Gazette Medica Lombarda*, June 21, 1890) recommends the following in the treatment of condylomata :

℞—Collodion, ...	2.00 grams.
Mercur. corrosiv., . . .	0.02 "

The collodion should be poured into a small cup, the corrosive sublimate added, and the whole well shaken, as the sublimate does not dissolve in collodion. The largest condylomata may be touched with a small brush dipped into the mixture, following this with the local application of cold water. On the following days the others may be treated until all are removed.

Mouth Wash.—Dujardin-Beaumetz is said to recommend the following to keep the teeth in good condition :

℞—Acidi carbolici, ...	gr. xv.
Acidi borici, ...	ʒ vj.
Thymol, ...	gr. viij.
Ol. menth. pip., ...	gtts. xx.
Tinct. anisi, ...	ʒ ijss.
Aquæ, ...	O ij.—M.

This should be mixed with an equal part of water, and used two or three times a day.—*Bost. Med. and Surg. Jour.*

For Warts.—Instead of the painful process of removing warts by nitric acid, which is perhaps the most usual method, the following formula is given (*Med. and Surg. Rep.*) :

℞—Acid salicylic, ...	gr. xv.
Alcohol, ...	♏ xvj.
Ether, ...	ʒ j.
Collodion, ...	ʒ ij.—M.

Sig.—Apply daily to warts.

Ivy Poisoning.—Kite (*Med. News*) says that bathing the parts with "black wash" effects immediate relief and a prompt cure.

Fissured Nipples.—

℞—Balsam of Peru,		
Tr. arnica, ...	āā	ʒ ss.
Oil of sweet almonds, . . .		℥ j.
Lime water, ...		℥ ss.—M.

Sig.—Apply a small quantity several times daily.

Subinvolution of the Uterus.—Prof. Barton Cook Hirst, of the University of Pennsylvania, recently gave the following as the best combination to use :

℞—Strychnine sulphatis, ...	gr. $\frac{1}{20}$.
Quinine sulphatis, ...	gr. ij.
Ext. ergotæ, ...	gr. j.

M. ft. pil. No. 1. Sig.—At one dose ; to be repeated thrice daily.

Our esteemed contemporary, the *American Lancet*, does not know what "hen sense" is. It *is* a "high grade" of sense—that kind of sense which will not permit the bird to scratch on the sidewalk for grain, where there is not even chaff to delude. The expression is common here, and was intended to convey our appreciation of the sound practical work of the *New England Medical Monthly*. The phrase is not classical, but is, we think, very expressive.

The Dominion Dyewood and Chemical Co., Toronto. Sole agents in Canada for the Farbenfabriken, vormals Friedr Bayer & Co., manufacturers of Phenacetine, and Sulphonal-Bayer, announce that they are now offering these valuable products to the trade in the form of lozenges. The Phenacetine-Bayer lozenges contain 4 and 8 grains, and Sulphonal-Bayer 8 and 16 grains, put up in neat boxes of 50 and 100 each. This will be a very convenient form for the prescribing of these valuable remedies.

The *Christian Advocate* is responsible for the following story:—A lady living in Ohio is the mother of six boys. One day a friend calling on her said: "What a pity one of your boys had not been a girl." One of the boys, about eight years of age, overheard this remark, and promptly interposed: "I'd like to know who'd 'a bin 'er; I wouldn't bin 'er; Ed wouldn't a' bin 'er; Joe wouldn't 'a bin 'er, and I'd like to know who'd 'a bin 'er."

Personal.—Dr. Millman has removed from 544 Spadina Avenue to 490 Huron Street, fifth house north of Bloor Street.

Dr. Oliver Wendell Holmes is 83 years old.

Books and Pamphlets.

Saunders' Question Compends. No. 1. Essentials of Physiology, arranged in the form of questions and answers, prepared especially for students of medicine, by H. A. Hare, B.S., M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, etc., etc. Third edition, revised and enlarged by the addition of a series of handsome plates. Philadelphia: W. B. Saunders. Toronto: Carveth & Co. 1891; pp. 186. $1.

This little work is so well known to students that we need say no more than that the present edition has been rendered much more useful by the insertion of plates from Oonold's "Icones Nervorum Capitis," which will certainly be of great value to the student in mastering both the physiology and anatomy of the cranial nerves. Their points of origin both superficial and deep; their modes of exit; their distribution and functions are all given. The book will be found useful for examination purposes.

A Practical Treatise on Diseases of the Skin. By Henry G. Piffard, A.M., M.D., Clinical Prof. of Dermatology, University of the City of New York; Surgeon in Charge of New York Dispensary for Diseases of the Skin; Consulting Surgeon to the Charity Hospital, etc., etc. Assisted by Robert M. Fuller; with fifty full page original plates, and thirty-three illustrations in the text. New York: D. Appleton & Co. Toronto: Carveth & Co. 1891.

The work before us is one of the best yet published for the general practitioner. The author's name is sufficient to give it authority on any subject with which he deals; and his method of treating the various subjects, appears to us, impossible to be improved upon. His definitions and classifications will be of the greatest possible value to practitioners who do not, in the ordinary routine of practice, treat cutaneous affections every day. There are no theoretical or controversial discussions, which would serve only to perplex any one but a specialist, and what is necessary to be said is put in the most practical manner, and in the fewest possible words. The author considers that our present knowledge of the pathological histology of the skin is in a too inchoate state to permit its being introduced in the present work. The last article in the work deals with these recently discovered and much discussed bodies—psorosperms. Wickham and Dorier, and many other foreign observers, hold that these are living animal parasites, which infest the human skin, producing varied lesions, all coming under the title psorospermose. These bodies are found abundantly in Dorier's disease—psosospermose *folliculaire végétante*, in Paget's disease and molluscum contagiosum. From a series of experiments conducted with polarized light, Dr. Piffard has concluded that these so-called molluscous bodies are not, at least in molluscum contagiosum, animal parasites, but are simply rete cells undergoing a species of corneous degeneration. If the author be correct in this, he has elucidated a matter of the greatest importance in regard to the pathology of these diseases. Paget's disease, Mammilitis Maligna, he believes to be a superficial epitheloma *ab initio* in which the proliferation of rete cells, with here and there a pearl of stratified horny cells, occurs laterally instead of downwards.

The plan of the work and its execution are both indeed excellent. We have seen no work which we can, with so much confidence, recommend to our readers, who are in need of help in the diagnosis and treatment of this very important class of diseases. The plates and figures are really illustrative of the text, are beautifully executed, while the letter-press and binding are all that can be desired.

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Original Communications.

SULPHURING OR BLEACHING DRIED FRUIT A MISTAKE, IF NOT A CRIME.

BY JOEL W. SMITH, M.D., CHARLES CITY, IOWA.

The subject of this paper should command the careful attention of consumers of dried fruit, of conscientious fruit dealers, and of all health authorities. Fruit is now regarded more as a necessity than as a luxury, the want of it being a common cause of ill health.

As fresh fruit is not always obtainable, various methods for preserving it are in use, drying being one of the oldest and best for many fruits. Middle-aged people recollect when sun or air drying was the only method for market. Then some good housewife discovered that more rapid drying by artificial heat, with or without the addition of sugar, was a cleaner method, safer against fermentation and decay, retained the flavor better, and the fruit was also lighter colored, than when sun or air dried. The present evaporators are only an enlargement of the idea of such more rapid drying, while canning consists in the exclusion of the micro-organic germs of fermentation.

This is an age of progress, yet experience often shows that not all changes are improvements. It is about fifteen years since the sulphuring or bleaching of dried fruit began. At first only the uniform light color was sought, as in apples, pears, etc., but for some years past nearly all the large evaporating establishments have "sulphured" all kinds of fruits and some vegetables, and now much of the California sun-dried fruit for market is also treated in the same manner. The light color, especially of apples, early attracted unthinking consumers and commercial men, thus materially increasing the price of such fruit. That caused the practice to spread even to those who disapproved of it. The expense and trouble were very slight. Fruit so treated is said to dry more readily, consequently all now prefer to do it.

While the apparent change is only in color, there is a loss of the natural fruit flavor, even by the most careful sulphuring. Unfortunately, some people do not notice the difference, but careful comparison shows it, as is admitted by the manufacturers of such fruit.

The practice began in California with apricots, as early as 1879. At the Twelfth State Fruit Growers' Convention, held in Fresno during four days in November, 1889, a paper on "Fruit Drying" was read by J. L. Mosher, of San Jose, and in his paper he remarked: "If fruit be picked before ripe and over-sulphured to produce whiteness, it is devoid of its true rich taste and flavor, and *only requires polishing to make buttons.*" (The italics are his.) In discussing the paper, one gentleman said: "I believe sulphuring the fruit is the greatest mistake in the world. I do it, but I believe it is wrong; the flavor of the fruit is gone after it is sulphured."

This change in quality was the first thing that called the attention of the writer's family to what was lacking in the "nice, uniformly colored" bleached fruits.

Later investigations have proved the presence of sulphate of zinc, "white vitrol," in all samples of fruit where zinc surfaced trays were used to hold the sulphured fruit while drying. Interested parties have charged the German prohibition of American evaporated apples to rival trade opposition, but there is no German fruit to compete with them. The real cause was the finding of zinc poison in considerable quantity. A good paternal government aims to protect its people.

WHY SULPHUR FRUIT AT ALL?

The advocates of sulphuring fruit say: (1) It dries quicker, (2) looks better, (3) keeps better, and (4) sells better. Besides, it makes ripe, unripe, and poor fruit all look alike; and if not so good for it, but few know it.

Sulphurous acid is formed by burning sulphur, and is readily absorbed by water. It abstracts oxygen from many vegetable substances, and thereby bleaches them. It also tends to prevent microscopic organizations that cause fermentation.

The acid in liquid form is colorless, very cheap, and smells like burning sulphur; is antiseptic, a preservative fluid for some substances—sample fruits, etc. Sulphur is often burned to disinfect sick-rooms of disease germs, and to kill rats, mice and vermin, but its use with food is objectionable. Ants and other insects, it is said, will not touch sulphured fruit, while they readily attack well ripened fruit that is not sulphured. The instinct of insects and animals is sometimes better than the practice of human beings. In general, substances that repel such creatures are hardly safe for human food.

THE EFFECT ON CONSUMPTION

has seemed to be a decided falling off in demand among the more intelligent class of people. Retail grocers know that many who once used dried fruit extensively, say, "Somehow we have lost our relish for it," and have almost ceased to use it since the craze for sulphuring fruits began. Fruit men say, "The public demands sulphured fruit, will pay more for it, and we will supply it." The public will yet show them that it can get its eyes open. As the green and canned fruit interests are the only permanent gainers by the sulphuring process, they are interested to have it continued.

DIFFICULT TO OBTAIN.

It is not easy to obtain a superior quality of unbleached fruit. In 1889 several retail grocers who understood the question corresponded with parties evaporating apples. The reply was, that "if an order for not less than twenty barrels was received at one time, apples would be furnished unbleached, otherwise not."

SULPHURING NOT DESIRABLE.

The slightly yellowish-brown color of unbleached dried fruit is an evidence of ripeness, good quality and proper drying. The more rapid the drying the lighter will be the color, and the fruit will keep well if at once properly excluded from the air. When sulphured, the good, the poor, and the unripe all look alike. Not so with the unbleached. No poor nor unripe fruit can make good dried fruit. The gain of sulphuring is always with the dealer, and not with the consumer.

HEALTH AGAINST LOOKS.

In preferring looks to quality, the people are often at fault. Public enlightenment will correct most dietetic errors. Good health is now sought by many, and will be by more in the near future, through correct living, rather than by the swallowing of drugs. And in that more excellent way, "in the good time coming," there will be no demand for sulphured and other drugged fruit among intelligent people.

DANGERS.

There is danger from fruit in metal cans, as is well known, and fresh fruit is frequently unobtainable, while both are often more expensive than dried fruits. Good, unsophisticated dried fruits are always harmless. If green fruits are at times unobtainable, canned fruits dangerous, and a popular craze has rendered dried fruits also dangerous, what can the suffering public do? It is between the alternatives of using no fruit, or that which is injured or poisonous. Is the sulphuring of fruit a mistake, or a crime?

TO CORRECT THE ERROR,

enlighten the people, and prohibit injurious practices. Legal suasion only will stop it at present. The common schools in many states are required to teach the effects of alcohol and narcotics. Why not also include the effects of different foods?

REPORT OF A CASE OF PUERPERAL ECLAMPSIA.

BY D. A. KIDD, M.D., BYNG INLET, ONT.

Mrs. McG., æt. 24 years, felt faint on the 20th July, 1891, shortly after eating her dinner (noon), and went out doors for fresh air, but was not out long when she took a fit and fell down. She came out of the first fit in a few minutes and walked into the house and sat down. In the course of half an hour another convulsion came on, and I was summoned to her aid. Having to go some six miles, it was five o'clock when I arrived. She had had seven convulsions and was in a semi-conscious state, with pulse 110, temperature 102°, respiration—which was somewhat labored—35 per minute. I gave 20 grs. of pot. brom. in solution, and a second dose in half an hour. Between doses patient had a convulsion and emesis was produced. It was found on inquiry that patient was pregnant four months, and had been feeling quite well up to the hour in which she took the trouble, with the exception of a little headache for a few days previous. The ankles were somewhat œdematous.

The therapeutic measures are chloral, chloroform, bleeding, morphia, purgation, pilocarpine. Her friends stated that two doctors had said on a previous occasion that she was not able to stand chloroform, but it was used in small inhalations. The chloroform was not urged sufficiently to stop the fits which took place about every twenty to forty minutes. Matters grew gradually more serious toward midnight. The uterus had not begun to act before eleven or twelve o'clock. Thirty minims of tinct. ergot was used to stimulate the uterine action then, and also chloral to dilate os. The friends thought it unwise for me alone to use instruments to dilate, for fear of her dying in the proceedings; and may be as well, since some authors depreciate any interference in that way. From twelve o'clock till five o'clock in the morning patient was growing worse, and all present looked for her death at any time. Her pulse ran by degrees up to 165 per minute, temperature 104° and 5, respiration—which was very much labored —55 per minute. Her tongue constantly protruded, and saliva was sprayed forth at every breath. Her neck, which was hard and tense, was about twice the natural size. The lips were purple and the extremities were gradually getting cold. Patient's eyeballs were insensible to light and touch all night, and she was also comatose. During the night, and up to five o'clock in the morning, the convulsions continued, at varying intervals of twenty to forty minutes. Each fit lasted about three minutes. Patient had thirty-five convulsions from beginning to the end. At five o'clock in the morning it was noticed that the os was dilating, which was aided by digital manipulation. The uterus was now firmly contracting. For a time efforts were made to dilate and membranes were ruptured. The feet presented, and soon delivery was complete. Patient had no more convulsions after delivery, and was sensible to handling right away after it. Hæmorrhage was small, and womb contracted well by keeping index finger in the os while a to and fro movement was gently exercised. Pressure with the left hand was kept on the abdomen, and this manipulation of the organ induced contraction, so that the os would grasp the finger as a child would a nipple. Miss L. A. Davis, M.D., 20 Washington Ave., Toronto, happened to be in the vicinity, and was called in consultation some six hours after delivery. We placed patient under the influence of chloral, 10 to 15 grs. per day, to be continued till better. Patient was kept on milk diet, broths and eggs. It is now one month since patient had first attack, and she is able to work around the house. The kidneys were stimulated some with potash salts and digitalis. Injections, also pulv. glycyrrhizæ co., were used for the bowels. Tonics, with some ergot, were used for a time; chloral constantly, amm. brom. Her temperature and respiration returned to normal in a week, but pulse remained 100 and 110 per minute for much longer time. Her appetite returned shortly to normal.

As to the different theories as to the cause of eclampsia, but one appears clearly in this case—that of the kidneys being interfered with, for there was albumen in abundance in the urine. Does it not seem to be in the nerve mechanism—maybe through the sympathetic system of nerves? How could *pressure* from a pregnant uterus of four months effect the kidneys? At no time was there a suppression of urine in this case.

EXCISION OF KNEE JOINT AND REMOVAL OF NECROSED FEMUR.

BY DR. G. T. ORTON, WINNIPEG.

In the summer of 1890 I was called upon to make an extensive tour of medical inspection of the Indian Reserves on the lakes Winnipeg, Winnipegosis and Manitoba, as well as down the Nelson River, and up the Saskatchewan as far as Cumberland House. Amongst the numerous cases of scrofula in its various forms which constantly came under my notice, I may be permitted to describe one of very considerable interest. It is the case of a little girl, nine years of age, very much reduced by the excruciating pain she suffered, as well as the profuse discharge from numerous sinuses around the knee joint, the result of caries of the articular ends of the femur, tibia and fibula. I decided upon excision of the joint as the only possible means of saving the life and limb of the child, so gave directions for all necessary preparations to be made, including a lounge for her to lie on, some birch bark and willow twigs, with which I determined to make a splint, and plenty of well dried moss in common use amongst the Indians as an absorbent with which to make pads, so that I would have no delay on my return from Cumberland House to this the Pas Mission Reserve. After making what I thought a perfect model of a splint with the birch bark and ribs of willow twigs to preserve its shape tacked on, with Mr. W——, a medical student who accompanied me to administer chloroform, and a clerk from H. B. store, who kindly volunteered to otherwise assist me, I proceeded with the operation which was soon completed by the semi-lunar flap operation; so far as the resection of the joint was concerned, including removal of patella which was also diseased, but to my horror after sawing off end of femur with a butcher's saw, I found a pus exuding from hollow shaft of the bone, and soon discovered that the shaft of the femur was necrosed, and that in the surrounding separated periosteum numerous spiculæ of new bone were thickly dispersed. Whether to amputate at the hip, or what to do, was the problem to solve, and to add to my difficulty my assistant from the H. B. store fell to the floor in a dead faint, and Mr. W——, administering the chloroform, was on the eve of following suit had I not caught him and made him lie on the bed. I soon decided that my only course was to remove as much as possible of the necrosed femur, thoroughly clean the wound antiseptically, do as little injury as possible to the periosteum, introduce a drainage tube, place the limb as securely as possible in my birch-bark splint and let the case take its chance. Having to attend to chloroform, being and in every way single handed, all this was no easy task to accomplish; however, with bone forceps and other means I managed to loosen and extract three-quarters of the necrosed femur, and soon had the satisfaction of having the limb securely placed in my birch-bark splint, snugly supported therein by numerous pads made by tucking moss into lint, and so arranged that they could be replaced easily without disturbing the quietude of the limb as they became soiled by discharges. She was then removed from table to the lounge made for the purpose, where she must lie for five or six months, and so constructed that by removing a slat and separate cushion, also made of moss, micturition and defecation could be effected easily without disturbing the complete rest and immobility of the limb. The estimable wife of the clergyman at the English Church Mission kindly undertook to see that all the most minute directions were carefully carried out, as to washing and dressing wound, etc. As this, I imagine, is the first case on record where the double operation of excision of knee joint and removal of a necrosed femur has been effected, I naturally held out small hopes of her recovery, and especially as she could not again be seen by a medical man, and with all her surroundings of an unfavorable character. However, I am happy to be able to state from information recently obtained from Mr. Hart, the school teacher, that she made an excellent recovery and is as healthy a girl as any in his school. Mr. McColl, the Inspector for the district, also seen her in his tour this summer and tells me there is very little shortening of the limb, and when standing no one would notice that there was anything wrong. Some pieces of bone found their way out along the drainage tube. The success I attribute mainly to the absolute immobility of the limb secured, and yet antiseptic cleanliness preserved. Cod liver oil, syr. ferri. iod. and generous diet was administered during convalescence.

RARE CASE OF FOREIGN BODY IN NOSE.

BY J. MURRAY M'FARLANE, TORONTO.

Late Clinical Assistant to Dr. Myles, N. Y. Polyclinic.

Upon the 15th of Nov., the patient, Mrs. A., wife of a Toronto merchant, was sent to me, giving the following history. The previous day, feeling a slight irritation in her nose, she attempted to pick it with an ordinary pin, which immediately excited a fit of sneezing. In the first inspiratory effort, the pin escaped from her fingers, and was drawn into the nasal passages, causing great pain and further sneezing, each paroxysm giving rise to a severe pricking sensation. Her family physician was immediately sent for, but being absent from home, she was sent to a specialist, who, after an examination not finding the foreign body, concluded that it must have escaped unnoticed. The discomfort, however, continuing, the next day she was brought to my office. Upon inspection there was found a condition of acute coryza, the parts being so swollen that anterior rhinoscopy gave negative results. The throat was so irritable that a posterior rhinoscopic examination was found impossible. I then thoroughly applied a 2% solution of cocaine, causing great retraction of the tissues in a few minutes, relieving the pharyngeal hyperæsthesia, permitting both anterior and posterior rhinoscopic examinations to be made with facility. Nothing could be seen of the pin, however, although the cavity was flooded with light by means of a small electric lamp, introduced into one nostril, also by the usual method of head-mirror and Argand burner.

The various parts were probed with the same result, and I was about to cease my efforts, thinking the pin had escaped. The sensation remaining, as is frequently the case, Mrs. A., however, was positive it had not done so, therefore I took a delicate probe and searched once more, with better success this time, for finally in the upper part of the nasal passages, almost in a line with the superior meatus, and quite out of view, my probe touched something which gave a metallic sensation, whereupon I introduced a delicate pair of forceps, and after one or two unsuccessful efforts, grasped the body and attempted to dislodge it; failing however, the forceps slipping and the parts becoming obscured by the blood which was dripping freely. A stronger pair of forceps next being used, I moved the body backwards and forwards, and finally after a hard effort, had the satisfaction of seeing the pin come into view, emerging from the mucous membrane where it had been imbedded for more than half its length with the point directed forward, which explained the difficulty of dislodging it, it having probably been forced in by the convulsive act of sneezing.

The peculiar points of the case were the almost inaccessible position of the pin, and the fact of its being buried beneath the mucous membrane for over half its length. After removal the parts were cleansed with a warm solution of Seiler's formula, and protected from the atmosphere by a spray of eucalyptol and benzonal, the patient experiencing no further discomfort.

LUMBAGO.—Dr. Lyman Watkins says (*Med Gleaner*) that ten drops of the tincture of gelsemium every four hours will almost invariably relieve that painful condition, or backache commonly called lumbago.

Correspondence.

To the Editor of the CANADA LANCET.

SIR,—I was much pleased with your remarks upon diphtheria in your Sept. issue. I remember some twelve years ago an article being read upon this subject before a medical society, when eleven of the thirteen members present, all engaged in active practice, declared as their conviction that the membrane of diphtheria bore the same relation to the disease as the eruption upon the skin to scarlatina.

The deductions of Trosseau, more than sixty years ago, made by the light of classical research alone, are thus confirmed by the most advanced scientific investigation of to-day, and should be read with care by every physician called upon to deal with this fatal scourge.

When the profession wake up to the fact, that diphtheria is "*without doubt a local disease*," (the italics are yours,) and is to be met in its primary stage, by the prompt and frequent application of antiseptics and detergents, a new era will have dawned upon the treatment of this dreaded malady.

Yours truly,
Toronto, Oct., 1891. W. SLOAN.

BARRIE, 9th Nov., 1891.

DEAR SIR,—Will you kindly permit me to write to you as connected with the LANCET, and having the chair of Materia Medica, at Trin. Med. College, to call your attention to the compressed triturates containing tincture of aconite from the States. Accidentally I discovered that the *U.S.P.* tinct. aconite was about three times the strength of the *B.P.* I have spoken to medical men who were using them and did not know this, and supposed they were of the *B.P.* strength, thereby giving *three* times more than they supposed. Also, the druggists I spoke to were ignorant of the fact. You will see how dangerous this is in Canada, where we use the *B.P.* strength; also in England, where some of those preparations are imported.

I am, sincerely yours,
A. ARDAGH.

[We are glad to have the attention of the public called to the above. We thought the difference in strength of the various proportions was universally known; but there are so many of these preparations that no doubt confusion often arises. Thus we have (1) tinct. aconit. rad, dose 1½ to 4 minims, (2) tinct. aconit. (Fleming's), also made from the root, dose 1 to 3 minims, (3) tinct. aconit. foliorum, dose 8 to 15 mimims, all of the U.S.P. While in the B.P. there is the tinct. aconit., dose 5 to 15 minims.—ED.]

Selected Articles.

ADENOIDS OF THE NASO-PHARYNX IN CHILDREN—THEIR EFFECTS AND TREATMENT.

Within the past few years much has been written about adenoids of the naso-pharynx; and in the medical journals are many careful articles, whose object is to show the causative relation of these growths to numerous diseases of childhood, which, though they seldom threaten the life of the child, are very annoying to the parents, physician and child. Indeed, until the appearance of the above-mentioned articles, these were incorrectly treated—the treatment being constantly directed to the diseases as existing *per se* and *in se*, and never to them as merely symptoms of one common cause. Judging from the number of children one may see everywhere, whose faces bear unmistakeable signs of the long continued existence of excessive adenoids in the naso-pharynx, the inference seems fair that many practitioners of medicine, busy with the greater ills that flesh is heir to, either fail to recognize the cause of these lesser troubles, or, if they bear it in mind, refuse to grant to it the importance it deserves.

The naso-pharynx is the Rome from which roads lead to the nose, and through the nose to the eye; through the Eustachian tube to the middle ear; through the larynx into the lungs; and lastly, through the œsophagus into the stomach and intestinal tract; and when this centre is the seat of excessive or diseased adenoid vegetations, it may become the source of disease in any one, or in all, of these organs; and, as a rule, affects more than one at a time. In considering therefore, the effects of untreated, excessive adenoids of the naso-pharynx, it may be well to look at (1) those upon the nose; (2) upon the eye; (3) upon the ear; (4) upon the lungs; (5) upon the stomach and intestinal tract.

The interesting questions involved in etiology and history of these growths will be reserved for a separate article.

1.—*Effects of the Presence of Adenoid Vegetations in the Naso-Pharynx upon the Nose, including Nasal Cavity.*—These effects vary much according to the relative amount of the growths present, the duration of their existence, the condition of these growths—especially as a separate pathological process has or has not been super-added in them—the constitution of the child, both inherited and acquired, and the conditions of life to which it has been subjected, together with the anatomical peculiarities of the nasal spaces in different individuals.

One of the striking symptoms of the presence of these growths in children, especially young ones, is the annoying, more or less constant, discharge from the nostrils. It differs in many respects from the acute coryza, to which adults are subject. The child does not seem to suffer the same discomfort that accompanies acute coryza; the chilly sensations are absent, the eyes are not necessarily inflamed, and the discharge from the nose does not vary much in character from day to day; the cold in the head of the child seems to remain at one thing under certain conditions, for a long period of time. "He always has a cold in the head." At the same time, the child does not breathe through his nose, or he breathes through it but imperfectly. The turbinates are swollen; and sometimes it happens, either from constant pressure of the swollen turbinate against some prominent part, especially of the lower part of the septum, or from long accumulations of irritating mucous discharge, perhaps both, that an ulceration forms, and the turbinate and septum at this point grow together, and remain so as to be a constant factor in the production of "throat and nose" trouble.

Another evidence of the presence of these growths, and dependent upon the catarrhal discharge from the nose, is an inflamed condition around the entrance into the nostrils. This inflammation, though generally circumscribed sometimes assumes an eczematous nature, and if the adenoids be left *in situ* proves to be exceedingly difficult to cure.

That a nose should attain the full shape for which the plan was laid in the fœtus, it is necessary that there should be a constant change of the air in the nasal passages. The stimulus of the air passing over the nasal mucous membrane, is essential not only to the complete and regular development of the turbinate bones, but also of the nose bones, of the vomer, of the ethmoid, of the cartilaginous septum—and of the various parts entering into the formation of the nostrils. Fortunately it is rare that the obstruction to nasal breathing is complete; and, moreover, the obstruction, to a high degree, is confined chiefly to the earlier years of childhood. The development of the naso-pharynx, and the tendency that these growths have to become smaller as the child advances in years makes room for the passage of air through the nose. Where, however, adenoids have existed in such quantity, or have been developed in such positions, or have been so affected by inflammatory processes, as to cause interference with free nasal respiration, the effect of the same is always felt in the development of the nose as a whole, and in the majority of cases, can be seen in the shape of the outer nose.

The *adenoid nose*, is essentially a weak one, and one showing signs of irregular and unsymmetrical development; and its shape often mars a face which would have had much beauty, had not the regular growth of the nose been interfered with. The delay in the development of the nasal bones causes a flattening of the bridge of the nose. This delay is due to lack of stimulus from the active advance of the septum. The nasal bone lacks support. In the same way the lateral cartilages of the nostrils—owing to disease of the nostrils during complete stoppage of the nasal passages and to their unequal use when one side of the nose is freer than the other, and to their want of full support from the septum—become unequally developed, or are developed not at the proper planes to each other; and, as a result, the nostril-walls thicken, or at times are too thin in certain places, and lose their normal curves. The later development of the facial bones and of the nose, removes, in a great measure, many of these faults due to nasal obstruction; but where excessive adenoids have existed for a long period of time, the nose, no matter how vigorous its development after the restoration of nasal respiration, will always tell plainly its early history. The septum is also affected by the stoppage to nasal respiration, and a certain proportion of the cases of thickening of the cartilaginous portion, especially in its upper posterior aspect, can, I am inclined to think, be traced to the early existence of adenoids.

It may be of interest to mention here, in passing, two conditions, which, though I am unable to prove them to be directly, or indirectly, dependent the one upon the other, are often enough asssociated to make an observer wonder whether they are the results of a common cause; and, if so, whether the one condition may not have some influence in determining the other. The two conditions are:

1st. A hypertrophic state of the upper and posterior part of the cartilaginous septum of one side—so hypertrophic that it furnishes an obstruction to the direct passage of air from the nostril entrance to the middle and superior turbinates, and often preventing any anterior view of the middle turbinate.

2nd. A marked diminution of the power of hearing on the side corresponding to this enlargement of the septum, as compared with the hearing power of the opposite side; and this when the air passages of the lower and posterior parts of the nose are apparently sufficiently free. Often, in older children, and in adults, these adenoids, or their remains, are the cause of a hypertrophic condition of the turbinates, which it is useless and unscientific to try to reduce with acids or the cautery as long as the adenoids are left in the nasopharynx, and which disappear without further treatment as soon as they have been removed. Epistaxis is of not infrequent occurrence in these cases, and it is probable that its source is to be sought in some small ulceration caused either by the nature of the catarrhal discharges or by pressure of the swollen turbinates.

II. *Effects upon the Eye.*—In writing of the delay in development of the nose bones caused by nasal obstruction, mention was made of the ethmoid bone, whose orbital plate furnishes not an inconsiderable part of the bony surface of the orbit. It is in the highest degree probable, that continuous nasal obstruction in early childhood delays the development of this plate, as well as of the rest of the ethmoid bone, it being an integral part of this bone; and, if so, the orbit is necessarily prevented from developing properly. This is a highly important point, for the eyeball is contained in the orbit, and the shape of the orbit necessarily determines, to a greater or less degree, the shape of the eyeball.

And just here, I believe, is to be sought the explanation of the fact, that the majority of children who have suffered from nasal obstruction, and post-nasal adenoids, as the chief cause of this condition, are far-sighted, and to a degree higher than can be explained by inheritance. The eyeball being in the orbit is influenced in its development within certain limits, though the laws of inheritance stamp their plan upon it while it is in embryo, by the development of the orbit. And here, again, in the faulty development of the orbit, is to be found the explanation of some of those sporadic cases of astigmatism which one meets with from time to time—that is, certain of those cases of astigmatism which are not inherited, and which cannot be explained by influence of previous inflammatory conditions of cornea, etc. I will cite one example here which is striking enough.

Mr. X, aged 22, has a father, mother, three brothers and a sister whose eyes may be called normal, showing but a slight amount of hyperopia; no myopia in the family. Mr. X, himself, shows marked astigmatism in one eye, while his nasal history is one of obstruction to a greater or less degree, greater in one side of the nose than the other, and lasting for a number of years.

Most writers on refraction of the eye say that in many cases the degree of hyperopia decreases as the child attains its growth. The degree of nasal stenosis, due to post-nasal adenoids, grows less and less as the child grows older; and so more and more of one of the necessary stimuli to the growth of the nose bones is furnished; and the nose bones, with the orbit, obtain their size and shape as performed in embryo, except in so far as they have been influenced by contrary external conditions, and, among these, nasal stenosis. I would even go further and find in this unsymmetrical development of the orbit, one of the causes of want of equilibrium in the eye muscles, giving rise to hyper-, ex-and-es-ophoria—especially the first of the three.

Among the *inflammatory affections of the eye*, which are of so frequent occurrence in children suffering from post-nasal adenoids that a connection between the two may be considered as beyond question, may be mentioned phlyctenular keratitis, phlyctenular conjunctivitis, catarrhal conjunctivitis, marginal blepharitis, and eczema of the lids, which last may even extend over the whole of one side of the face, and often is combined with eczema of the outer ear.

The *phlyctenular troubles* deserve a few words. The last articles on these troubles, in discussing their etiology, mentions " age, occurring chiefly in children," " unhygienic surroundings," " astigmatism," " bad and improper food," as the probable causes. While it is true that phlyctenes occur most frequently in children whose surroundings are " unhygienic," it is doubtful, to a high degree, if astigmatism has anything to do with their production; nor has " bad and improper food," further than that " bad and improper food " tends to lessen resistance to disease; nor will youth and unhygienic surroundings produce phlyctenes of the cornea or conjunctiva. In the vast majority of cases of children suffering from phlyctenular troubles, there will be found a coincident rhinitis, and behind this, unhealthy adenoid vegetations. The picture presented by these cases is so characteristic, that once recognized, it is not easily forgotten.

Phlyctenes and a Running Nose.—Generally the child has " had a cold for a long time " before the eye trouble begins. Some writers believe that scrofula predisposes to phlyctenular eye inflammations. It is true that the phlyctenes occuring in scrofulous children are more obstinate to treatment, have a greater tendency to recur, and to produce more lasting damage to the eyes, than do those occurring in non-scrofulous children; but this is only because the improperly treated rhinitis of scrofulous children is severer in its manifestation and more lasting in point of time than is the improperly treated rhinitis occuring in non-scrofulous children. In the majority of cases of phlyctenular troubles in children, where the affection is confined to one eye, it will be found on examination that the rhinitis on that side is apparently greater in degree than on the other side; *i. e.*, that the discharge from the nostril on the side of the phlyctenular trouble is more profuse than that on the other side. This may be due to one or both of two causes—either the rhinitis is really more severe on this side, perhaps from some anatomical intra-nasal condition; or the two sides of the nose, having been at first equally affected, the second side has become more inflamed after the appearance of the phlyctene in the eye; for the phlyctenular affections cause a hyper-secretion of tears, and of a nature often severe enough to inflame, even to bleeding, the skin of the outer canthus of the eye, and a greater proportion of these tears are carried into the nose, where their irritant action upon the nasal mucous membrane will readily produce excessive acute catarrhal discharge from the mucous membrane.

It is highly probable, then, that the excessive discharge from the nostril on the side corresponding to the eye affected, is due to the hyper-secretion of tears. This is rendered even more probable when one considers the cases of acute monolateral, non-purulent conjunctivitis, which are accompanied by a severe monolateral rhinitis.

The *cause*, then, of phlyctenular eye affections in children, in the vast majority of cases (I can imagine other causes), is to be sought in the catarrhal condition of the nose—in the catarrhal discharges therefrom, which, in turn, are due to the unhealthy conditions of adenoids present in the post-nasal space. Whether the phlyctenular trouble be due to the germs which find a culture medium ready prepared in the altered and often stagnant secretion of the nasal spaces, or to a chemical product, the result of disorganizing changes in these nasal discharges, I am unprepared to say; but that it is due to one of the two, I feel convinced.

The mode of transference of this secretion from the nose to the eye may be either through the lachrymal canal, which, I think, highly improbable; or directly from the nostril entrance into eye externally, either by the child rubbing the nose and then the eye, as he is frequently seen to do, or through the agency of the pocket handkerchief, or by the pillow becoming saturated for a certain space with the nasal discharges while the child is asleep, and then the child turning over, so that the eyelids touch this space. This latter, *i. e.*, moistening of the pillow with the discharges from the nose in these cases, is often. It is probably the cause of the moist eczematous condition of the posterior aspect of the auricle, and of the lobe of the ear which is found accompanying, not infrequently, phlyctenular conditions of the eye. It is not the rule for phlyctenular troubles to occur where the parents are at all careful about removing the discharges from the nostril-openings as soon as they appear, and where they teach the child to keep his nose as clean as he can. These troubles occur chiefly where the children have been greatly neglected, owing either to the ignorance of the mother, as in the cases of negroes, or to her being obliged to do so much work for her daily bread that she cannot give proper attention to her children, as in the cases of factory operatives.

Catarrhal conjunctivitis is not infrequently found accompanying a rhinitis due to adenoids. This conjunctivitis may be confined to one eye, or may effect both eyes at once, or one eye after the other. Sometimes it co-exists with a phlyctenular condition of the cornea-scleral margin. In one case which came under my observation, the child had a phlyctene of the cornea, which healed entirely under yellow oxide of mercury ointment; several months later, a monolateral catarrhal conjunctivitis, when getting well, was followed by a crop of small styes.

Marginal blepharitis is also at times found as a condition consequent upon the presence of a continued rhinitis due to adenoids of the naso-pharynx; though in this case I would look for an additional cause besides the secretions of the nose.

(*To be continued.*)

ON IMMUNITY.

Since Pasteur's celebrated discovery that it is possible to make animals immune against chicken cholera and other diseases by the use of attenuated vaccine, the nature of immunity, whether natural or acquired, has attracted to an ever-increasing extent the attention of bacteriologists. Year by year new theories have been brought forward to explain these phenomena. It is not my intention to attempt to discuss these earlier theories, partly because I prefer to leave this to abler hands, partly because the more recent theories on this subject tend rather to supplement than to exclude their predecessors. I should like, however, to point out how our modern views on this subject are acquiring greater precision and definiteness as time goes on. The view that acquired immunity was due to an alteration of the metabolism of the tissue cells, either in general or at the seat of infection (Grawitz, Buchner), is now known as the phagocite theory, with which the name of Metschnikoff will ever be honorably connected. The supposition of Chauveau and others that immunity was caused by the presence of some unknown substance of bacterial origin is now overshadowed by the results obtained by many workers who have actually found bacteria-killing substances in immune animals, whose nature and origin, however, appear to be very different from what Chauveau's theory might have led us to expect. It is to a consideration of this view of the nature of immunity that I propose chiefly to devote my paper.

Towards the end of 1888, Nuttall discovered that various bacteria are destroyed when mixed with fresh blood or blood serum, and, further, that this destruction cannot be ascribed to the action of cellular elements, but rather to the fluid part of the blood. This discovery (which really arose from the German criticism of Metschnikoff's phagocyte theory) was soon followed by the work of Buchner and Nissen, and these observers came to the conclusion that this bactericidal action of the cell-free blood serum is a weighty factor in the conflict between the organism and the microbe. A further confirmation of this view is to be found in the interesting discoveries of Bouchard. He first showed that the blood serum of an ordinary rabbit will serve as a culture medium for the bacillus pyocyaneus. If, however, a rabbit is made immune against the disease produced by this bacillus, its blood serum has acquired the power of attenuating and even destroying the microbe in question. Thus it was shown that by making an animal immune against a disease the bactericidal action of its blood serum was greatly increased. Similar results have since been obtained with the microbes of cholera, anthrax, and other diseases. Among these must be mentioned the recently published work of Emmerich and Mastbaum on pig typhoid. Not only have these observers found that the microbes of this disease are killed by the blood serum of rabbits that have been rendered immune against it, but they have successfully employed such serum to cure the disease after it has appeared in other susceptible animals. These discoveries concerning the bactericidal action of blood serum led to another of a very different, and I may say unexpected, nature. I refer to the work of Behring and Kitasato on tetanus and diphtheria which appeared at the end of last year. With these last named diseases our attention is at once drawn from the microbes to the poisons they produce. The microbes of tetanus and diphtheria do not spread through the body of the infected animal, as is the case with anthrax. On the contrary, they remain in the immediate neighborhood of the seat of inoculation. There they elaborate their deadly poisons, which, when absorbed into the system, produce, as is well known, various disastrous effects. For instance, an inoculated guinea-pig will in some cases develop typical diphtherial paralysis long after the last diphtheria bacillus has vanished from its system, and practically the same clinical effects can be produced by an injection of a minute dose of the poison made by the diphtheria microbe as by the microbe itself. Fraenkel, Behring, and other observers agree that scarcely any tolerance can be obtained by successive inoculations of minute doses of the unaltered diphtheria poison; consequently such a procedure can scarcely be expected to lead to a sure way of producing immunity against this disease. How then, it may be asked, can we ever hope to find a cure for diphtheria? Suppose, for example, a substance was discovered which could kill the diphtheria microbe without harming the living animal tissues, how could this cure disease when it has once appeared? The blood serum of rats possibly contains such a substance; but what could be the use of using it to destroy diphtheria bacilli in a patient if it leaves untouched the diphthèria poison, which, in the absence of the microbes that produced it, is quite capable of destroying the health of the patient?

The above-mentioned work of Behring and Kitasato disposed of the pertinency of these questions. These bacteriologists succeeded in making rabbits immune against tetanus and diphtheria. They found that the serum of a diphtheria-immune rabbit (to confine our attention to one of these diseases) exerts no bactericidal action on the diphtheria bacillus. It possesses, however, the remarkable power of destroying the poison produced by this microbe. In this anti-toxic power of such serum we at once see a possibility of curing tetanus and diphtheria (for the above statements hold good for both diseases), and, as a matter of fact, it has been found possible to cure either disease in mice and guinea-pigs. Indeed, Behring has cured mice of tetanus in which the disease had so far progressed that several of the limbs were in a condition of spasm. Gamaleia has obtained results with the poison of the vibrio Metschnikovi which go to confirm these of Behring and Kitasato. He found that this poison is destroyed by the blood serum of the rabbit, but not by that of the guinea-pig, these animals being by nature respectively refractory and susceptible to the attacks of this microbe. Thus we see that the discovery of the bacteria-killing power of blood serum, besides suggesting a new direction in which practical results may be expected, leads us to a new theory of immunity, which may be stated as follows: "Immunity, whether natural or acquired, is due to the presence of substances which are formed by the metabolism of the animals rather than by that of the microbe, and which have the power of destroying either the microbe, against which immunity is possessed, or the products on which their pathogenic action depends." It may be noted that this theory, as I have stated it, does not attempt to exclude other factors. It is possible—or, indeed, probable—that in some animals immunity against some diseases depends either wholly or in part on other causes.

The question now arises, What is the nature of the substances on which this bactericidal action of blood serum depends? Buchner attempted an answer to this question two years ago when he first attacked the subject. He carefully tested the action of each one of the known constituents of blood serum on bacteria. Not one of them showed the slightest bactericidal action. He successively showed that the bacteria-killing action of blood serum could not be ascribed to salts present, to traces of fibrin factors, or to the other proteids of serum. Consequently he arrived at the somewhat curious conclusion that this power of destroying microbes possessed by blood serum was due to a remnant of the "vitality" that had been possessed by the blood-plasma from which the serum was derived. It is difficult to see in what sense of the word such a statement is an explanation of the bacteria-killing power of blood serum, and when I first read it I was at once reminded of Professor Huxley's comparison of "vitality" with the idea of Martinus Scriblerus, who explained the operation of the meat-jack by its inherent meat-roasting power, and scorned the materialism of those who sought to explain its action by some hidden mechanism in the chimney. Another possibility existed—namely, that Buchner had overlooked some constituent of blood serum, and that to this unknown constituent the bacteria-killing power of blood serum was due. It would lead me too far to attempt to detail the theoretical considerations that led me to suspect that a particular ferment-like proteid known as cell globulin *B* was the substance in question. At any rate, I tested its action on anthrax bacilli, and found that it possesses the power of destroying these microbes. I further found that similar substances were present not only in animals that are naturally immune against anthrax, but also in those that are susceptible to this disease. To those substances I have given the name of *defensive proteids.* In my published papers on this subject I have noted various similarities in the bactericidal action of these substances and that possessed by blood serum, and these resemblances are such as to leave little room for doubt that the bactericidal action of blood serum is due to the presence of these defensive proteids.

It is obvious that the mere presence of these bodies in the animal organism does not compel us to regard them as a means of resistance to microbe invasion. Before we can regard them as a real factor in the production of immunity it must be shown that the defensive proteid of a refractory animal is more active or is present in a larger quantity than is the case with an animal that is susceptible to a given disease. This very necessary proof I sought to obtain by a study of the defensive proteid of the rat. This animal is known to be highly resistant to anthrax. Behring, in 1888, showed that its serum is more alkaline than that of any other animal that he examined; further, that it has the power of killing anthrax bacilli, which power is lost when the serum is neutralised. He came to the conclusion that the immunity of the rat to anthrax is due to this high alkalinity of its serum, but was unable to isolate the alkaline substance involved. Naturally, my work on defensive proteids enabled me to attack this question from a more favorable standpoint, and I soon found that this serum contained a proteid body possessing a well-marked alkaline reaction and a power of destroying anthrax bacilli. Further, when injected into mice, along with fully virulent anthrax spores, it would prevent the development of the disease. On the other hand, defensive proteids of animals susceptible to anthrax can exert no such protective power, and consequently these experiments indicate a difference in the mode of action of defensive proteids from immune and susceptible animals respectively. Further, the amount of defensive proteid present in a rat can be diminished by those causes which are known to be capable of lowering its power of resisting anthrax. For instance, Feser states that rats become susceptible to anthrax when fed on a vegetarian diet. I have obtained similar results with wild rats. The ordinary white rat, however, I have found to be generally refractory to anthrax on any diet, and always the defensive proteid can be obtained from its spleen and blood serum. With the wild rat this is not the case. In one experiment eight wild rats were used; of these, four were fed on bread and meat, the others on plain bread, for about six weeks. Then one rat of each lot was inoculated with anthrax; of these, the one that had been subjected to a bread diet succumbed. The remaining rats were killed, and it was found that while the spleens of the flesh-fed rats contained abundance of the defensive proteid, only traces of this substance could be obtained from the spleens of the rats that had been fed on bread alone. A similar result was obtained in other experiments.

These facts appear to me to prove that the defensive proteid of the rat deserves its name, in that it tends to preserve it from the attack of the anthrax microbe; in other words, that this substance is, at any rate, a part cause of its immunity against anthrax.

Since the publication of my work on defensive proteids, Buchner has abandoned his view that the bacteria-killing power of blood serum is due to a remnant of vitality, and in a paper recently published he admits the importance of defensive proteids, and suggests for them the name "alexine." Certainly, if it were necessary to re-christen "defensive proteids," this name would be very appropriate. It would, however, be convenient to form names for the different classes of defensive proteids, and I do not think it would be premature to do so now. Defensive proteids appear to be ferment-like, albuminous bodies, and it is extremely unlikely that we shall for a considerable time be able to classify them by any other than physiological tests. From this point of view it is possible to divide them into two classes: first, those occurring naturally in normal animals, and, secondly, those occurring in animals that have artificially been made immune. For these two classes I propose the names of "sozins" and "phylaxins." A "sozin" is a defensive proteid that occurs naturally in a normal animal. They have been found in all animals yet examined, and appear to act on numerous kinds of microbes or on their products. A "phylaxin" is a defensive proteid which is only found in an animal that has been artificially made immune against a disease, and which, so far as is yet known, only acts on one kind of microbe or on its products. Each of these classes of defensive proteids can obviously be further sub-divided into those that act on the mibrobe itself and those that act on the poisons it generates. The sub-classes I propose to denote by adding the prefixes "myco-" and "toxo-" to the class name. Thus, myco-sozins are defensive proteids occurring in the normal animal, which have the power of acting on various species of microbes Toxo-sozins are defensive proteids also occurring in the normal animal, having the power of destroying the poisons produced by various microbes. Myco-phylaxins and toxo-phylaxins similarly will denote the two sub-classes of the phylaxin group. —E. H. Hanken, B.A., in *Lancet.*

ERRORS IN DIAGNOSIS.

I ask permission to say that I stand here now as a conscript rather than as a volunteer. I have no unique or striking cases that I desire to communicate, and I am not conscious of possessing any new development or theory of disease struggling to find utterance. When, therefore, I consented to read a paper to-day, I thought that, next to endeavoring to advance the general stock of knowledge, the best course to adopt might be to try to add to the security of that which we have by pointing our errors into which I and others have fallen. Having yielded in this matter, chiefly to my friend Mr. James Worthington's pressure, and having mentioned the subject I should probably handle, he replied to me in this pleasant way: "By the way, do you remember a particular case in which you made a great mistake?" This made me pause, and I reflected that, if many of my friends here to-day should, as they probably can, round on me in this prompt fashion, I should have a bad quarter of an hour, and should repent of my rashness. However, I resolved to persist in my intention. I am willing to offer myself as an oblation to the advancement of science, and I even challenge Mr. Worthington, when I have done, to describe this case in which I was so mistaken, because it is clinically interesting, as it led to an error in treatment which he had the sharpness to detect and the skill to rectify.

Confession of error, however, need not imply blame. Mistakes in diagnosis may be due to various causes—to inherent obscurity of signs and symptoms of disease, to misleading statements by patients or malingerers, or to our imperfect physiological knowledge; but in addition to those inherent causes of error, mistakes too frequently arise from the carelessness or the ignorance of the surgeon. We may, perhaps, divide medical men into two classes, those who are over-cautious and those who are over-confident. The over-cautious are less often wrong than the others, but they labor under a great disadvantage, for a patient who sees that a doctor cannot make up his own mind is apt quickly to find somebody who can. There is an exception, however, to this rule: an eminent London surgeon or physician can withhold an opinion and plead for suspense of judgment without forfeiting the confidence of the patient, while the general practitioner would at once lie under the imputation of ignorance. I was calling one day last year on a prominent surgeon in Liverpool; he had a patient at the time in his consulting room with a doubtful tumor of the breast, and he invited me to examine it. I asked my friend to give his opinion, and he replied: "I think I have reached a position here which entitles me to say I don't know what it is."

The over-confident men, men who are cocksure, who in their own opinion never make mistakes and who pronounce their decision boldly, are, in my experience, very often wrong, and when they are wrong they are palpably and hopelessly enveloped and beyond friendly extrication. The cautious man who is in error has probably left himself a loophole of escape through which he can in some measure save himself, but the cocksure man stands convicted by his own bold declaration, and his only alternative is to declare that he has been misunderstood and that after all he really saw the true bearing of the case.

In my student days I was clinical clerk to a distinguished physician of the cocksure type. A man had died in the hospital of peritonitis, as proved at the *post-mortem* examination. The physician examined the general condition and took his leave; he constructed an ingenious theory to explain the cause of the inflammation, but he did not know, what I discovered after he had left, that there was a malignant stricture of the rectum. This was carefully removed, and the following day at the clinical lecture, after the professor had got well beyond the etiology of the disease, the specimen was presented on a plate, with many apologies for being late; there was a momentary halt and confusion, but our over-confident teacher quickly recovered himself, and asserted boldly that he had had a strong feeling that disease of the rectum might be present, and he thought that he had mentioned it.

This same physician made another bad shot; the case is historical, and is worth mentioning. Mr. Liston was suddenly attacked with hæmoptysis to an alarming extent, the source of which could not be explained by Sir Thomas Watson and other men of note who examined him; they could find no physical signs indicative of aneurysm until signs of pressure on the windpipe and on the recurrent laryngeal nerve made the diagnosis of tumor or aneurysm evident, and this was only a short time before his death. The over-confident physician I have mentioned, however, at an earlier period of the case, declared that there was evidance of tuberculous consolidation at the left apex; he attributed the bleeding to this cause, and prescribed accordingly; but when I made the postmortem examination and found no disease whatever of the lung, but an aneurysm of the aorta situated precisely behind the centre of the sternum, the physician declared that he had suspected the existence of aneurysm or tumour, which I, who was present at the consultation, can declare he never mentioned; and I have documentary evidence to prove that, in his opinion, Liston's case was one of pulmonary tubercle.

I am tempted to allude briefly to one more mistake of this self-confident physician. When I was acting as demonstrator of anatomy at University College I was asked to make a post-mortem examination of a gentleman who died very suddenly; he and Dr. Roots were hurriedly summoned, and arrived at the house together, but not until after the death of the patient. They heard the history of the seizure, and gave the opinion that apoplexy was the cause of death.

Just at that time Mr. Paget was giving a course of lectures at the College of Surgeons, on Pathology, which I was attending. Amongst other subjects, he dealt with fatty degeneration of muscular tissue, and I had in my mind his clear and vivid account of this change. In conducting the post-mortem examination I was somewhat taken aback to find that the brain was entirely healthy, and that there was no indication of the apoplexy of which it was supposed the patient had died. Pursuing the inquiry, I found the heart large, soft and greasy, and under the microscope exhibiting in an extreme degree that fatty degeneration which Mr. Paget was then describing. My eyes were opened wide at this discovery; the subject so well understood now, was new at that time—more than forty years ago. I thought the matter well over, and saw its important clinical bearings. Other similar cases soon occurred, showing the same pathological appearances, and I felt sure that I was on the path towards valuable results. I soon found, however, that my old friend, Dr. Quain, was working on the same lines, and I retired from the inquiry, giving over to him the cases and notes which I possessed. I only allude to this matter now because it may interest our honored visitor, Sir J. Paget, to know how quickly his excellent teaching began to bear fruit.

There is, perhaps, another class of medical men who are apt to fall into errors, not from carelessness or ignorance, nor from too much caution or over-confidence. Rather they are men of argumentative ability, of subtle thought, and of much learning, prone to search for hidden and remote causes when plain ones lay straight before them, and they are fond of constructing cunning theories when common sense and experience will easily explain all. They lack that faculty of estimating the true value of this or that symptom, that intuitive insight which may be designated as sound judgment. Oliver Wendell Holmes has illustrated this class in a very humorous way when he makes the hero of the breakfast-table consult Dr. Benjamin Franklin about a discoloration on his forehead, the result of a slight bruise; the learned young doctor examines it in every possible way, goes elaborately into the family history, hints that it may be a case of morbus Addisoni, and explains fully the nature of that disease. The patient is alarmed; but his landlady eases his mind, applies a vinegar cloth, and the disease quickly subsides. The patient moralises on the matter thus: "Science is a first-rate piece of furniture for a man's upper chamber if he has common sense on the ground floor; but if a man hasn't got plenty of good common sense, the more science he has the worse for the patient."

I well recollect some years ago visiting a case for a medical friend now diseased. The patient was rich, indolent, lived in a fine house, and fared sumptuously every day; he had a swelled and inflammed foot, and putting these conditions together, my friend informed me that it was a case of gout Probably the aspect of things had altered somewhat between his visit and mine, but it was obviously not gout at all, but ordinary phlegmonous cellulitis, which spread up the whole limb and ended in supparation and sloughing of the cellular tissue which nearly cost the patient his life.

Let me, however, advert briefly to one or two of the diseases, which in my observation have been most frequently overlooked or mistaken: and I would give the first place to diabetes, a disease which manifests itself with so few objective symptoms and in such a variety of ways. Cataract; as we well know, is often the accompaniment of diabetes, and I have heard Sir W. Bowman say that he had in a vast number of cases recognized diabetes—before unsuspected—by the peculiar appearance of the opaque lens, The coexistence, too, of boils, and carbuncles and of gangrene of a toe or finger—or even of suppuration of a joint of a toe or finger—with diabetes is common and familiar enough; and I have seen quite a number of cases of so-called prostatic disease in old men in which the frequent micturition depended not on the readily suspected hypertrophy of the gland, but simply on the fact that, having a large quantity of urine to discharge, the bladder required frequent relief, and it is well to remember that this large quantity of urine and frequent micturition, though commonly due to ordinary diabetes, is occasionally the effect of diabetes insipidus. So, too, the coexistence of diabetes and lithic acid gravel and stone is not uncommon, and should be borne in mind, for the combination is formidable, and may prevent the cure of the otherwise curable stone.

The mention of stone leads to the remark that next to diabetes the presence of stone in the bladder is perhaps most frequently either overlooked or undetected. There is no surgeon living—no matter how great his experience and his manipulative skill may be—who does not occasionally fail to detect a stone that exists in the bladder. I plead guilty to this myself, for I have had it brought home to me, and have felt not a little chargin and self-reproach at my shortcoming. I am not going to describe the various methods of sounding for stone, but I wish to allude to one source of mistake only, which I have met with over and over again. I can best illustrate it by a case. A London hospital surgeon who was spending his holiday on the coast near Cromer met with a sturdy old fisherman who had all the symptoms of stone. He induced the man to go to his London hospital, but he was surprised that, when there, no stone could be detected; he examined again and again, and called in one or more of his colleagues, and eventually sent the patient home with the opinion—afterwards expressed to me—that malignant disease of the prostrate was probably the cause of his symptoms. Yet this man had a stone which was successfully removed by lithotomy in the Norwich Hospital, and the explanation of failure to find it I believe was this: the patient was a tall fat man, aged 72 years, with an enlarged prostrate, and the bladder was very deeply placed and distant; an ordinary sound would go to its usual extent, and could be partially rotated, but I soon found that it required considerable further introduction and even to push back the flexible part of the uthera on the sound in order to reach the bladder; when it was reached, the stone could not be missed, but I have no doubt that my London friend had never passed the sound fully into the bladder, but had only examined the deep prostatic sulcus, and the limited movement of the sound he probably attributed to a contracted bladder.

I am warned by time that I must forego the mention of the mistakes and difficulties which so frequently occur in the diagnosis of tumours; whole chapters—even volumes—could be usefully written on such a subject; so, too, on the detection of feigned diseases, but I will conclude with the mention of one of the latter kind which has found a place in the standard literature of surgery.

In the third volume of Brodie's miscellaneous works is a description of what he calls "dry or white grangrene of the skin." A portion of skin of the size of a shilling, or larger, dies, and turns white, or dries in an amber-colored, horny slough, and is separated by ulceration; the wound heals, but a succession of these mortified patches follow one another, and seem interminable. He gives three cases, and showed in lecture a wax model of one of them; all the patients were young women with anæmia and irregular mensturation; little is said of the treatment pursued except that it was not very effectual, and the patients left the hospital and were lost sight of.

How many of us have ever seen a case of white gangrene of the skin? One such came under my notice long ago, when I was house-surgeon at University College Hospital. It tallied exactly with Brodie's description; piece after piece of skin about the size of a shilling or half-a-crown turned white, necrossed and was separated, and the wound healed. The patient was a young woman, and she was the object of great attention by the surgeons and the students because of this rare and peculiar disease, and because, too, she was very good-looking. She stayed in the hospital many months, then she left, and was lost sight of for a time. At length the history of the case was completed; she became an in-patient of the Brighton Hospital; there suspicion arose, a watch was set on her, and the cause of the disease—which in London was explained by some ingenious hypothesis in more than one clinical lecture—was found to be a pennyworth of strong sulphuric acid and a glass rod! She was ignominiously expelled from the hospital, and I believe she committed suicide soon after.

I have always thought that Brodie's white gangrene of the skin had no better foundation as to its etiology than, and probably the same as, existed in this case. I may, however, be mistaken, and I give this opinion with diffidence; but if I am right—if so astute, so careful, and so experienced an observer as Sir B. Brodie was mistaken —we may all take comfort in the reflection that neither age, learning, nor experience can prevent occasional error. The older we grow the more wary do we become; we know the pitfalls into which we may fall and probably often have fallen; whereas the young practitioner, who has not yet been much confronted with his own blunders, with the enthusiasm of youth and the complete teaching of the schools, is apt to be more sure of his opinion, more free in expressing it, and therefore more frequently in error. This, however, I may say, quoting the witty words of the late Master of Trinity College, "We are none of us infallible, not even the youngest."—William Cadge, F. R. C. S. in *Br. Med Jour.*

THE INFLUENCE OF MATERIAL IMPRESSIONS UPON THE FŒTUS.

Although the belief in the influence of the maternal impressions upon the fœtus, which has existed long ago among all people, has found, and still finds, strong support from the greatest philosophers and most celebrated physicians, the subject has not yet found a proper place in science, being relegated to the region of delusions and fantastic fables. In the first place, the general belief in the influence of material impressions upon the fœtus found many opponents in the beginning of the eighteenth century, who began to prove that as between the mother and fœtus there exists no nervous connection; all such cases, principally connected by Sachs, Schroeck, Haller, and others, were either merely accidental or inherited. Afterward, however, the German writers made far weightier objection, namely, that every deformity, as the result of embryological defect, must be developed during a certain period of time, and for this reason cannot be the result of a momentary impression acting on the mind of the pregnant woman.

Nevertheless there have appeared from time to time, especially in the English and American papers, descriptions of cases seeming to prove the possibility of such influence of maternal impressions upon the fœtus. And what still more deserves our attention is that many of these descriptions are given by men who are known as conscientious investigators and critical observers. It is sufficient to mention the works of W. S. Lowman, T. Wetherby, Thomas Hedman, and many others, in which this subject has again been raised with great carefulness and criticism, and therefore we cannot yet regard this interesting and enigmatic subject as closed.

It is to be understood that by maternal impressions we do not mean the defects of development manifested by an arrest of the organism in the beginning of the embryologic state, but rather cases in which the psychical impressions are stamped on the development of the fœtus.

The following case, observed by myself, directed my attention to this question:

The wife of one of my friends, being in the second month of pregnancy, was frightened by the wound of her little son, four years of age, which he received on the forehead from a fall against the edge of a clothes-press. The wound, however, was not dangerous, but it alarmed the mother. In due course she was delivered of a female child, who had in the same place a red scar, showing the exact resemblance of that of her brother's.

Professor L. Neugebauer described, in a Polish paper, the following two cases, which I will cite in his own words:

"In the Milan Anatomical Museum there is a specimen of a female child, who died at the age of three months. The skin of this child, from the head to the navel, is black-brown, and covered with hairs, and besides that there are spots of the same color in other places. It is curious that in the brain also are some dark spots. The mother of this child related to Professor Billi, previous to the birth of the child, and he personally communicated the facts to me, that she had once, while pregnant, looked intently for some time at a monkey that was being exhibited in the street." I must add that the monkey was dressed in short trousers, leaving his upper parts bare. "I, on my part," continues Professor Neugebauer, do not doubt the possibility of the influence of maternal impressions upon the fœtus; my own son serves me as a proof of it. I once hurt my left leg on the inside by a thorn while bathing in a river. On my return home I dressed the wound. At the moment when I was cleaning it my wife, who was then in the first month of pregnancy, entered and was frightened by it. The boy, born in due course, has, in the same place where I have the scar resulting from the wound, a mark of the same shape and color."

Dr. Edward Garraway relates the following very interesting case: "A lady of refined taste was in the habit of sitting before a group of statuary, with one little figure of which she was greatly enamored. This was a Cupid reposing, his cheek resting on the back of his hand. When her baby was born his resemblance in form and feature to the little Cupid was at once striking. On seeing him the next day in his cradle, I perceived he had assumed the precise attitude of the statuette—the cheek upon the back of the hand; and this position he invariably, and, of course, involuntarily, adopted during sleep, not only throughout infancy, but up to advanced. boyhood, when I lost sight of him."

Dr. James Bryden relates the following case occurring in his practice: "A short time ago I attended Mrs. C—— during her second confinement. After the child was born, the common question, Is it all right? was asked by the mother, and answered in the affirmative. Presently the nurse discovered that the great toe of the right foot was entirely wanting. The mother then related that, when she was in her fourth month of pregnancy she dreamed that a rat had bitten off her corresponding toe; and so vivid was the impression that she awoke screaming, and narrated the cause of her fright to her husband, who corroborated her statement. The veracity of both parties is unimpeachable."

The following characteristic case is related by Charles F. Williamson: "Mrs. D——, aged 30, multipara, when four months pregnant, was opening the door of a shed in her garden, when a black-and-white collie dog pushed against her and ran away, having been shut up previously by her husband without her being cognizant of the fact. This made a deep impression on her at the time, and she continually, even to the time of her confinement, told her husband that her child would have a mole or be born disfigured in some way. So much did this prey upon her mind that her appetite failed, and she could not bear the sight of any animal, whether out of doors or inside the house. On September 26th I was sent for, and found a footling presentation, the right foot presenting. . . . . I may say that when the right foot and leg were born there was great difficulty in keeping them warm, in spite of warm flannels. On examining the child the whole of the right thigh was covered by a mole from the groin to the knee, and entirely encircling the limb. The color was shiny black, and studded with long white hairs. There was another mole situated over the spine of the left scapula."

"About three weeks ago," writes John T. Hislop, "I was called into the country to attend Mrs. M—— in her confinement. When I arrived at the house I found that the child had been born some considerable time, but the placenta had not yet been expelled. After removing this latter I was shown the child, a well-developed male, which had evidently reached the full term and could not have been dead many hours. The child's head was the extraordinary part, and exactly resembled a miniature cow's head. The occipital bone was entirely absent, the parietal bones only slightly developed; the eyes were placed at the top of the frontal bone, which was quite flat, and each of the superior angles of which was twisted into a rudimentary horn. The striking resemblance to, or, more correctly speaking, almost exact imitation of, a cow's head, was unmistakable. When, a few days afterward, I was able to speak to the mother on the subject, she told me how she had been terrified by a bullock when walking home from market during the second month of her pregnancy."

Dr. Charles W. Chapman is of opinion that the whole available material we possess should be collected and definite conclusions drawn from it. He states the following case: "A lady, in comfortable circumstances, aged twenty-four, and of no marked emotional temperament, engaged me early in 1883 for her second confinement. The patient was exceptionally robust, and her little girl, then nearly two years of age, was in every respect healthy. The patient informed me that early in her pregnancy she had seen a man begging whose arms and legs were all doubled up. The sight gave her a shock at the time, but she hoped no untoward effect would follow. I, of course, endorsed her hopeful view of her case, and urged her not to trouble herself any further. In due course I was summoned, and on examination found a shoulder presenting. The time of day being that in which all my medical neighbors would be out, I persuaded the patient to allow me to turn without giving chloroform. The operation was performed with some difficulty. The child was an anencephalous monster. The extremities were rigidly flexed, the feet almost sole to sole, and the fingers firmly clenched. The child could only have been dead a few hours. The mother was, of course, desirous of seeing her child, but I disuaded her from this by assuring her that although this child was imperfect, there was no reason why she should not be more fortunate next time. The patient made a good recovery and shortly afterward changed her residence Four months later she became again pregnant, and unfortunately she frequently passed a man who was a partial cripple, living in the same road. This circumstance revived the patient's fears; but she did not appear to be much depressed and she was quite hopeful regarding her coming infant. The confinement took place at full term, and presented precisely the same difficulties as on the previous occasion. The child also was a counterpart of the last one, with the exception of the head, which was normal. After an interval of a few months my patient became again pregnant, and this time she was delivered of a strong and undeformed child."

It is impossible to cite all the cases published in the last few years. I have limited myself to the citation of some that seem to me to be more characteristic. I may add that the same facts are observed in the case of animals. Dr. Gray, curator of the British Museum, showed at a meeting of the London Zoological Society, on February 24, 1864, a chicken, whose bill and feet perfectly resembled those of a parrot. These monsters were very often born in his hen-house, and he explained them by the fright of the hen, caused by the cries of the parrot when the hen came near its cage.

My father, with whom I on one occasion spoke on the subject of maternal impressions, related to me that on his farm a peasant had a horse whose face greatly resembled that of a cow's. As I was interested in this question, I took the first opportunity to see the animal, and must acknowledge that its face presented a striking resemblance to a cow, only the horns were wanting. The peasant was known in the whole village as the owner of the horse with a cow's head. I may state that in Poland the peasants keep the horses together with the cattle in the same stable.

Can we, in view of so many facts, affirm that maternal impressions have no influence upon the fœtus? To repudiate and deny so many facts, because they are in contradiction with the universally accepted opinion, is to affirm, in one's conceit, that all laws that govern nature are discovered and known.

It is true that no nervous connection exists between the mother and the fœtus, but does the absence of it exclude the possibility of the maternal impressions upon the fœtus?

If we only consider the following facts, we have no reason to deny the influence of maternal impressions: 1, That every idea, every impression, must be materialized, or, in other words, it is impossible without the work of nervous tissue; 2, that there exist many phenomena which cannot be explained by direct connection with the nerves, as, for instance, the action of one mind upon another at a distance; 3, that a certain impression or idea can influence the function of our tissues or organs, as, for instance, fear can produce many disorders in our organism, even the thought of a lemon can produce abundant secretion of saliva, etc. Besides that, the modern psychologists and physiologists believe that the fœtus, long before entering the world, is conscious of pain and physical satisfaction, and also gives expression to many impressions. These affirmations of psychologists are founded upon Luy's experiments, which prove that the placing of the cold hand upon the walls of the abdomen immediately produces movements of the fœtus, and it is well known that the body is not a good conductor of warmth. It is also known that the light suddenly thrown into the eye of the mother, as well as a sudden noise, produces violent convulsive movements of the fœtus, and Perez states as a fact that a certain woman, experiencing great fear three months before the birth of her child, felt convulsive movements of the fœtus, and the child lived only a few months after birth, having very often, and without any external cause, sudden convulsive fits.

These are facts, proving that the fœtus may unconsciously, but yet truly, express maternal impressions. But how the external or interna- world acts upon the souls, half-formed and perhaps already possessing certain indistinct self-knowledge, is a very hard question, which cannot be quickly solved. According to Luys[1] the nervous cells are, during a certain time, in a state of vibration, produced by external impulses or impressions. If we agree with this writer, the question ceases to be obscure to us, or to exist in the region of imagination or fables. Besides that, it is known that deviation of the nervous fibre, during development, of even one-tenth of a millimetre will influence powerfully the structure and development of certain organs. In consequence of this, an impression, be it continuous or accidental, received during fœtal life, influences the development of the brain and individual organs; therefore only one strong momentary impression, even in a dream, received by the mother and transmitted by her, is sufficient to produce afterward a run of changes in the development of the fœtus.

On my part I am thoroughly convinced that different psychical and physical defects, which till now have been ascribed to inheritance, are in most cases the results of moral impressions derived from the surroundings of the mother. Naturally not every woman bears children with traces of her impressions. If it were so—as Buffon remarked—what strange creatures and strange characters we would see then. Nature did not furnish every man with the same susceptibility of nerves, and therefore the impressions have not the same effect upon everyone. We must, however, admit that strong and lasting impressions must undoubtedly have influence upon the fœtus.

It is a well-known fact that with animals the first male decides the influence upon the further offspring, so that the young ones descending from other fathers always show the traces of the first father. Probably the first male produces strong impression on the female that lasts very long. With plants these facts have not been observed, as Mr. Knight asserts. Probably also in the moral impressions of the woman lies the key to the secret why children of the same parents often entirely differ in character, temperament, capacities, appearance, etc. This difference, which can often be met with, stands in contradiction to the generally accepted theory of inheritance.—Dr. J. Drzewieki, Warsaw, Poland, in *Med. Rec.*

CHRONIC RHEUMATISM.

Gentlemen:—I want to show you to-day this young girl, aged sixteen years, with a negative family history, who ten years ago had an attack of rheumatism when she also had an inflammation of the eye, which brought on a cataract. Since then she was free from rheumatism until after she moved from the country to Philadelphia, about one year ago. Not long after removing to Philadelphia, she began again with rheumatism, which was first felt only in the smaller joints of both hands and both feet, all the joints being affected almost simultaneously. At first the joints were tender to the touch, painful, more especially at night, somewhat swollen, and, perhaps, very little reddened. There was little or no fever present, and I may have stated that is one of the distinguishing characteristics of chronic rheumatism, which frequently follows acute rheumatism, though sometimes years later. Now she also tells us that during the last eleven months she has had exacerbations several times, with the symptoms named, and at other times was comparatively free from them. That is also very characteristic of the course of chronic rheumatism. The disease is very much influenced by weather changes and by locality of residence. She lives, she thinks, in a comparatively dry home; but the fact that she began with rheumatic symptoms as soon as she removed to Philadelphia, and had not had rheumatism for ten years prior, goes to show that, after all, the house to which she removed may not have been so dry as it should have been, and, hence, may have caused rheumatism. For we do know that damp residences are frequently the cause of chronic rheumatism, as well as a leading factor in the causation of acute rheumatism.

It is a very important matter to decide as to whether you have a case of chronic rheumatism or a case of gout to deal with, and, then again, it is important to distinguish chronic rheumatism from so-called rheumatoid arthritis, which is not rheumatism at all, though an affection of the joints.

Rheumatoid arthritis is apt to occur later in life, and is a steadily progressive condition, one joint after another becoming implicated, without any decided subsidence in the local symptoms of a joint once affected. Cases of rheumatoid arthritis also result, by and by, in ankylosis of the joint, and there is greater deformity than we see here. The ends of the bones become enlarged and very much thickened, while the soft structures near the joint waste very much in rheumatoid arthritis; hence, the well-marked deformity that is almost universally present. Later, there is ossification of the soft structures around the joint, with complete ankylosis, and it is by this condition that you will often be obliged to distinguish between cases of rheumatoid arthritis and cases of chronic rheumatism. Partial ankylosis rarely occurs in far advanced cases of chronic rheumatism; they do have impairment of motion. You may find only limited motion in the joint; decided stiffness, with persistent enlargement; but you never have in chronic rheumatism, however far advanced, complete ankylosis.

You have now to distinguish from chronic gout, not always an easy matter. Gout is markedly hereditary; rheumatism is also hereditary, but not quite to the same degree. In rheumatism, you will generally have a history of exposure in a damp residence, as in this girl's case, or exposure out of doors to wet and cold. Not so in cases of gout. You, however, often get a marked history of over-feeding prior to an attack of gout. The attack of gout comes on at night, and, as a rule, affects the toes and smaller joints. No such history was obtained from this patient. These paroxysms last a much shorter time than an attack of rheumatism, either acute or chronic; you have, in gout, deformity and stiffness on account of the deposits of urates in the joints. In gout, you have the urine much more implicated than in chronic rheumatism, and so also is the blood. If you are in doubt as to whether a case is one of gout or chronic rheumatism, examine the blood under a microscope for uric acid crystals; if you find these, you may be sure you have gout to deal with. This never occurs in cases of typical rheumatism, but does usually occur in gout. Uric acid crystals in the urine are pathognomonic of gout.

Much more might be said as to these diseases; I have given you only the leading points in the differentiation. The history is of course different in different instances. The history of this patient's case also points clearly to rheumatism. Since this girl came here in June she has improved. Her treatment has been the administration of four lemons daily, a teaspoonful of Rochelle salts once a day, and a tonic mixture consisting chiefly of tincture of calumba, before each meal. In cases of rheumatism, we attempt to maintain an alkaline condition of the blood, and we know, as physiologists, that the vegetable acids are the natural means for maintaining this alkalinity, so that the administration of lemon juice is a perfectly rational method of treatment. Besides this, we find that the so-called anti-rheumatic treatment in cases of chronic rheumatism, has really very little beneficial effect; far better is it to improve the nutrition of the patient; far better is it to give tonics, more particularly the bitter tonic. Additionally we may administer cod-liver oil. I think there is no better remedy in chronic rheumatism than cod-liver oil given continuously, provided that the digestive organs will tolerate it. When anæmia is present, we administer iron; a little iron would do this girl no harm, as she has some of the evidences of anæmia, viz.: pallor of the skin and mucous membranes; but since she has improved under the present plan of treatment, we will continue it until Professor Woodbury, whose patient she is, returns.—Dr. Anders in *Times and Reg.*

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CATARRHAL FEVER.

This disease embraces two stages, the dry and the moist, and the indications for treatment are somewhat different in each.

To relieve the fever and coryza of the first stage antifebrin is a good remedy. It may be combined with quinine.

℞—Antifebrin.	gr. viij—x.
Quinine, ...	gr. v.

M. This will generally insure rest and a moist skin.

A purgative,

℞—Hydrarg. chlor. mitis, . . .	gr. v.
Ipecac, ...	gr. j.
Rhei pulv., ...	gr. viij.

M. One dose to be followed by a dose of Epsom salts or castor oil if needed.

Order a bowl of hot water, add a few drops oil turpentine; let the patient inhale the vapor, a shawl or blanket thrown over the head to confine the steam. This often affords much relief. If the throat be sore apply turpentine to the fauces with a swab. After the purgative has acted give

℞—Tinct. aconiti rad., ...	ʒj.
Vini antimonii, ...	℥ijss.
Spt. ether, nitros., ...	ʒvj.
Liquor ammon. acetatis, q.s. ad.	℥jv.

One-half teaspoon-to teaspoonful every two to four hours as indicated. Children four to five years of age twenty drops. Opiates are not good for this stage, but if there is much restlessness a dose of Dover's powder may be given. Antikamnia is better. Mustard should be used as a counter-irritant. One part of ground mustard to two of flour. It should be applied frequently during the disease, and when the mustard is not on, a poultice of wheat bran or cloths wrung out of warm water, and over it a layer of oiled silk. Quinine in moderate doses three times a day. The temperature of the room should be kept pleasant. Under this treatment the cough will become loose, fever will subside and dyspnœa and soreness of the chest cease in a day or two. Then give,

℞—Syrup scillæ,	
Syrup senagæ,	
Syrup tolut.,	
Tinct. opii. camphorat., . .	āā ℥j.
Ammonii chlorid., ...	ʒij.

M.—Sig.—Teaspoonful every three or four hours. Digitalis comes in well and it may be added to the syrup as indicated.

In small children prompt and efficient measures are often needed to relieve the dyspnœa and other threatening symptoms. Give fluid extract ipecac in doses sufficient to insure free emesis. This may be necessary at intervals for several days, but it must not be given so as to keep the child nauseated, as this interferes with the measures of support, which are important, especially if the child have pertussis. In this disease we must support the strength by using stimulants and rich, nourishing food, and they are indicated early. Besides the usual treatment indicated above the following is a good prescription for *whooping-cough*:

℞—Ext. cannabis indicæ, . . .	gr. xv.
Ext. belladonnæ, ...	gr. viij.
Alcohol,	
Glycerin, ...	āā. ℥jss.

M.—Sig.—Four or five drops to a child one year old; two years old, five to eight drops three or four times a day.—Dr. Lockhart in *Atlanta Med. and Surg. Jour.*

A CASE OF THE ATAXIC FORM OF ALCOHOLIC PERIPHERAL NEURITIS.

Alcoholic Ataxia.—Ataxia gait; inability to stand with eyes shut; loss of knee jerks; girdle pain; recovery.

T. G., 31, clerk, consulted me on the 2nd March, 1889, complaining of pains in the calves of his legs, which were worse on walking about. His illness began on February 18th.

Previous History.—He had never had any serious illness or met with a severe accident, though he had twice fallen from his bicycle and cut his face. Denied having had syphilis or any venereal disease. He had had gout, and used to keep a public house. According to his wife and his employer he had been in the habit of "boozing" himself with beer daily. Took no breakfast, but bread and cheese or ham and a pint of ale at 11 o'clock.

Family History.—His father had gout and died of it. His mother was living, aged 62, in indifferent health; 12 or 14 years ago she was insane. He had one brother and one sister alive and in good health.

History of Present Attack.—His wife and his employer concurred in stating that for about a fortnight they had noticed his memory had failed him. He forgot to do what he was told; and yesterday he imagined he had been at work the day before, although he had not been from home for several days. On Sunday, February 17th, he was in his usual bodily health and took a long walk with a friend. On Monday morning he started to walk to his office and found great difficulty in getting there. The distance was about a mile and the snow was on the ground; but he did not get his feet cold or wet. For the last two days he had had a sense of tightness round the waist (girdle pain). His wife said he had complained to her of seeing double.

Present Condition.—Patient came stumbling into my room, and very nearly fell; he could not stand steadily with his feet together, and fell as soon as he closed his eyes. The knee jerks were entirely gone. The pupil reflexes and ophthalmoscopic appearance were normal. There were no lightning pains; girdle pain already referred to had been present for two days.

His mental condition was not obviously abnormal, but his wife said that he asked her the same question repeatedly, and she was decidedly of opinion that his mind was affected. There does not seem to have been any moral change. There was no muscular wasting or obvious paralysis. No œdema or eruption on skin. Physical signs normal. Bowels regular.

Urine pale, clear, acid, 1010, contained a trace of albumen, no sugar.

He was ordered hypodermic injections of strychnine, and to become a total abstainer. Owing to difficulties, the strychnine was administered by the mouth and the abstinence maintained till lately, when he had been taking, against advice, a little claret.

October 31st.—Patient came to see me again. He could walk quite well; stood quite steadily with eyes shut and feet together; no girdle pain; knee jerks present. His urine still contained a haze of albumen. The pains in the legs were better.

Remarks.—These cases are sufficiently uncommon to make this typical example worth publishing.

The diagnosis was made on two grounds: 1, the very rapid onset, and, 2, the history of alcoholism. It is said that the absence of myosis, of the Argyll-Robertson pupil, of arthropathies, and of visceral crisis, are of diagnostic value, but all of these are absent in many cases of locomotor ataxia, which later develop into general paralysis.—Dr. Robert Saundry, in *Birmingham Med. Rev.*

RESULTS IN THE TREATMENT OF SIMPLE FRACTURE OF THE SHAFT OF THE FEMUR AS DECIDED BY THE AMERICAN SURGICAL ASSOCIATION.

The frequency with which the surgeon is summoned to court as defendant in suit for damages for alleged maltreatment of a fracture of the femur makes this one of the most important questions in jurisprudence.. Perhaps even more frequently the patient seeks to recover a large sum from either the individual or corporation by whom he was employed at the time of his accident. On such occasions in the past, the evidence of different surgeons testifying in the case has at times been so discordant that the court has come to look upon expert testimony with distrust, and juries have occasionally rejected it altogether.

In so simple a matter as fracture of the femur it would seem that there should not be so much diversity of opinion, and an effort has been made to harmonize the surgical mind upon this question, by the American Surgical Association, than whom no body of men can speak more authoritatively. A committee was accordingly appointed to report at the meeting now just past what, in their judgment, under the methods of treatment now employed, should be considered as satisfactory results. The committee consisted of Dr. Stephen Smith, of New York; Dr. D. Hays Agnew, of Philadelphia; Dr. David W. Cheever, of Boston; Dr. D. W. Yandell, of Louisville; Dr. Charles T. Parkes, of Chicago; Dr. P. S. Connor, of Cincinnati; Dr. Charles B. Nancrede, of Ann

Arbor ; and Dr. Hunter Maguire, of Richmond. The following circular was issued to members : " What should be considered as a satisfactory result (other than perfect union) in the treatment of a simple fracture in the shaft of the femur?" Thirty-four replies were received; these were carefully tabulated, and the committee endeavored to select a common ground to which the Association could subscribe, and to which members could adhere in court.

The following are the conclusions . A satisfactory result has been obtained in the treatment of fracture of the shaft of the femur when (1) firm bony union exists ; (2) the long axis of the lower fragment is either directly continuous with that of the upper fragment of the axes on nearly parallel lines, thus preventing angular deformity ; (3) the anterior surface of the lower fragment maintains nearly its normal relation to the plane of the upper fragment, thus preventing undue deviation of the foot from its normal position ; (4) the length of the limb is either exactly equal to that of its fellow, or the degree of shortening falls within the limits found to exist in 90 per cent. of healthy limbs, viz., from one eight of an inch to one inch ; (5) lameness, if present, is not due to more than one inch of shortening ; (6) the conditions attending the treatment prevent other results than those attained.

This report was accepted by the Association. One year is fixed upon as a reasonable period after the cessation of treatment for a final decision in regard to restoration of function.

A limp or lameness, does not necessarily indicate an unsatisfactory result. It has been observed that many persons have a normal variation in the lengths of their limbs, in some of the cases as much as an inch, who show no signs of lameness. It is also found after fracture that by tilting the pelvis, some patients will compensate for considerable shortening, and show no limp in their gait, while others with much less shortening, will show decided lameness. Of course, reference is had only to simple fractures of the shaft of the bone; it would be obviously impossible to lay down any rule for the infinite variety of complications which may occur under other conditions.

The conclusions above given, however, cannot fail to be of the greatest benefit in future, as they are Medical Supreme Court decisions ; it would seem that legally they must be accepted.—*Univ. Med. Mag.*

ANTAGONISM BETWEEN AGUE AND PHTHISIS.

I should like briefly to call attention to the possibility of there being an antagonism between malaria and phthisis. I was surprised in my journey to Central Africa to notice the distribution of phthisis, for although bronchitis, pleurisy, and pneumonia were constantly seen in nearly all the districts through which I passed, the cases of phthisis which I was able to observe were few and far between, and corresponded in a marked manner with the absence of malaria, at any rate, in its most intense forms. From Khartoum, along the valley of the White Nile, as far as the Albert Lake, through the swampy districts of Unyoro and Uganda, I can recall having seen only very few cases of phthisis (in Uganda some eighteen or twenty). Subsequently, however, on my return journey, I saw a considerable number of cases in the Shuli district, at an altitude of from 3,000 to 4,000 feet, where malaria is very rare, and where, I may mention in passing, I think that Europeans could colonize. Again, in traveling through the Bahr-el-Ghazal district, I saw a considerable number of phthisical individuals, not inhabitants of that province, but men and women, soldiers or slaves, who had come from the elevated distrits in the Mombuttu country. Further north, at Dara, I again met with phthisis in people who inhabited the highlands of the Gebel-Marah region, where, I was informed, malarial fevers were entirely absent.

During the last few years (it may, of course, be the result of accident) I have had the opportunity of seeing several patients distinctly phthisical, in the early stages of the disease, who have since been abroad, and suffered more or less from malaria. On seeing them after their return, I found, and must say to my surprise, that in seven out of nine, all the phthisical symptoms had disappeared, and in the other two, although I could find no improvement in their condition, the disease had apparently made no progress.

M. Boudin, in 1857, put forward the theory that malaria and phthisis were antagonistic. He held :

(*a*) That where malarial endemic fevers are prevalent, phthisis is rare, " that the frequency of one class of cases is inversely proportionate to that of the other."

(*b*) That where malaria decreases phthisis increases ; and

(*c*) That phthisis is more curable in malarious regions than in others.

These propositions were at the time vigorously discussed, but the subject has fallen out of mind. Long before M. Boudin called attention to it, in 1841, Harrison, of Horncastle, remarked on the infrequency of consumption in the Fens, and, in 1811, Wells contended that consumption and malaria were opposed to each other, and referred to many authorities to corroborate his statements. The references to the literature on the subject will be found in the "British and Foreign Medical Chirurgical Review," vol. 23, 1859. The late Dr. T. B. Peacock, writing on the subject in 1858, did not think that any such antagonism could be proved, and published six cases which he had himself treated in which phthisis and malaria both affected the patient. Still he writes thus: "I cannot, therefore, but conclude that it is not probable any material antagonism exists between phthisis and intermittent fever. The facts do not, however, warrant the denial of the supposition altogether, and there are probably few popular ideas which have not some foundation in truth."

It is only fair to mention that Dr. Peter Gowan, once physician to the King of Siam, does not credit the antagonism of ague and phthisis, owing to the prevalence of both diseases in Siam. ("Consumption," P. Gowan, M.D., London, 1878, pp. 57-59.) Still, he admits that "it (consumption) was unquestionably shown to be almost, if not quite, absent from many such localities, and to be less prevalent where the fever was of a bad and obstinate kind." In Corea, ague, which is there called "hakuchu," is universally prevalent, although the country is generally dry, and there are few marshes or swamps. Phthisis is almost unknown.

Prof. Virchow found that nearly the whole of the population of Upper Silesia suffered from malaria, and had enlarged spleens. He never saw a case of phthisis in that region, and the doctors resident there assured him that that was the result of their experience, too. Gowan says that in all cases of phthisis he saw in patients who had also an enlarged spleen, the right lung was affected, illustrating Dr. Brehmer's theory of the causation of phthisis, and he says: "In the enlarged spleen of those who have suffered from obstinate ague we have a sufficient explanation of their comparative immunity from phthisis by the accelerating influences it exercises on the circulation within the lungs, as a result of the intermittent compression to which the basis of the lungs are subjected by this in common with all other enlargements of the contents of the abdomen." There is doubtless much to be said for the enlargement of the spleen acting thus mechanically, but, to my mind, it is an insufficient explanation of the whole matter, for the spleen is not invariably sufficiently enlarged to act in that way. I thought that I should have found something to support my view that malaria and phthisis are antagonistic, in investigating the results which have been obtained in the rearing of monkeys in this country, but, although I find that it is true the majority of monkeys do die of phthisis, yet it must be admitted that those monkeys which died at the Zoological Gardens some years ago died from the effects of imperfect ventilation, and, therefore, it is impossible to class them among the deaths from phthisis proper.

In referring to the annual loss by phthisis in the army, it was in 1856 8.9 per 1,000 in the line regiments in the United Kingdom; in the Guards it was 12.5; but if we look at the mortality in Malta for the same regiments during the same time, we find it was below 5 per 1,000, and that during the same time at Mauritius and Ceylon it was only 4 per 1,000, and in the Madras Presidency below 1, per 1,000.

Numbers of observers in America have called attention to the antagonism between ague and consumption. So, for instance, Dr. Green, of Whitehall, Washington, U. S. A., said as long ago as 1858 that, though intermittent fever was of unusual frequency in that district, there was not one case of phthisis developed there, and that phthisical patients who arrived there found "relief as decided as it was permanent." He mentions also a morass near Ruthland which was made into a pool, the result being that intermittent fever disappeared, and that phthisis took its place. This was the more remarkable because the re-establishment of the morass was followed by the reappearance of ague and a diminution of phthisis; indeed, it only took a half-year to establish this change.—Felkin, *Med. Press.*

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THE TREATMENT OF HÆMOPTYSIS. — Professor H. Nothnagel, publishes in a Vienna medical journal an interesting paper on the treatment of hæmoptysis. The first thing, he says, is absolute rest. If the loss of blood is at all serious, the patient must not utter a sound; if it is necessary he should speak, he must only whisper, or better still, write down everything he wants to communicate. He must not be allowed to see visitors, and the sick-room must be kept at an even temperature. The patient must take nothing warm, nor anything likely to excite or irritate. The best food for the first two days is cold milk. Regular diet may then be resumed gradually, but all food which might increase the action of the heart must be avoided in future. Formerly an opinion prevailed that the patient should be allowed to cough, the retention of the blood being supposed to be hurtful, as it was believed that tuberculosis was a consequence of hæmoptysis, but this opinion is quite erroneous. On the contrary, one of the first indications is to suppress all inclination to cough as much as possible, for which purpose morphia is the best remedy. Should the hæmoptysis not cease, other remedies must be applied. The author first mentions those remedies which ought to be eschewed, and the use of which is occasionally a physiological error. The first to be banished is perchloride of iron, the action of which on the blood is to cause it to coagulate and to form a thrombus. In the form of inhalation it would be simply useless but for the great danger in allowing a patient suffering from hæmoptysis to draw a deeper breath than absolutely necessary for respiration. The liquor ferri, if administered internally, is, according to some, not absorbed at all, but, even if it be so, it would only tend to increase the hæmoptysis. The same may be said of tannic acid and of alum, which contract the blood-vessels only when diluted to $\frac{1}{8}$ per cent., and are consequently useless for hæmostatic purposes as well as for inhalation. The author dispenses altogether with inhalation in hæmoptysis. The only two hæmostatic remedies he recommends as useful are ergotine and acetate of lead; the first may be used internally and in hypodermic injections, the latter may be given in conjunction with opium. Another remedy which he mentions, but of which he has himself no experience, is hydrastis Canadensis. A few years ago hypodermic injections of atropine were recommended, and Prof. Nothnagel has occasionally seen them effective. No objection can be raised to half a teaspoonful of common salt when no other remedy is at hand. Hæmorrhage from the lungs is certainly sometimes arrested by its use, but the author is not quite sure if the success is *post hoc* or *propter hoc.* Nor is he certain whether, as supposed by some, a reflex irritation of the pulmonary vessels takes place. This theory is certainly physiologically feasible, as recent experiments have shown that sensory excitement in some parts causes the blood-vessels in other parts to contract. An application of ice, for instance, to the abdomen causes anæmia of the mucous membrane of the larynx. A very common remedy is the application of cold; but the ice-bag is, according to the author, of very doubtful value, as it is impossible to assume that the cold acts directly on the bleeding surface, for we do not know to what depth it penetrates. If the cold does act hæmostatically, the effect must be due to irritation of the skin. Professor Nothnagel warns us, however, that in some people the application of cold to the thorax causes cough, which is far more dangerous than the doubtful contraction of the blood-vessels can be useful. An extreme and heroic remedy is venesection. It is a well-known fact that wounded soldiers faint from loss of blood, when the hæmorrhage immediately stops, and a similar observation has been made in metrorrhagia and hæmoptysis.—*Lancet.*

An Easy Method of Plugging for Epistaxis.—Dr. A. A. Philip describes a ready method of plugging the posterior nares, which in his hands is both effectual and easily accomplished. A piece of old, soft, thin cotton, oiled silk, or silk, about six inches square—a piece of an old handkerchief will answer—is taken, and by means of a probe, metal thermometer case, or penholder, is pushed "umbrella" fashion into the nostril, the direction of pressure, when the patient is sitting erect, being backward and slightly downward. It is pushed on until it is felt that the point of the "umbrella" is well into the cavity of the nasopharynx. The thermometer case is now pushed on in an upward direction and then toward the sides, so as to push more of the "umbrella" into the pharynx, and is then withdrawn. The closed end of the sac protrudes well into the pharynx, and its open end protrudes at the anterior nares. The inside of the sac may be brushed with some astringent, such as alum or turpentine. A considerable quantity of cotton wool is pushed well back to the bottom of the sac in the pharynx. Then, the thermometer case being held well against the packed wool, the mouth of the sac is pulled upon, and thus its bottom is drawn forward, and forms a firm hard plug wedged into the posterior nares. The sac may now be packed full of cotton wool, dry or soaked in some astringent solution. The mouth of the sac is tied just outside the nostril, trimmed with scissors, and the ends of the thread secured outside. In removing the plug, open the mouth of the sac, and, with small dressing forceps, gently remove the cotton-wool bit by bit. If there is bleeding, simply syringe the sac with weak carbolic lotion or Condy's fluid, and repack with clean cotton-wool. If there is no bleeding when the wool is picked out, gently pull out the sac, or if it be adhering to the mucous membrane of the nostril, apply a little warm water, and it may then be easily removed. By this method no damage is done to the floor of the nose or back of soft palate by strings, etc., no disagreeable hawking, coughing or vomiting takes place during the introduction, and no disagreeable strings are left hanging inside the mouth.—*Brit. Med. Jour.—Brooklyn Med. Jour.*

Arsenic in Pernicious Anæmia.—J. A., a coachman, came to me on November 25th. He then stated that he had always been a pale man, but for the last three months had been feeling very weak, and became quickly fatigued on the smallest exertion. For the last two or three weeks he found that there was blood in the mouth on waking in the morning. The patient was tall, very thin, and intensely pale; the conjunctivæ were lemon colored, the hands pearly white, and the ears looked transparently waxy. The gums were pallid, large and very spongy, and at the junction of the teeth and gums a thin line of blood was visible. The tongue was clean and very pale, and the lips bloodless. There was no œdema of the ankles. Altogether he looked like a man who had recently suffered a severe hemorrhage. He was short-breathed and felt faint when standing. The lungs were quite healthy. There was a soft systolic murmer over the cardiac area, probably anæmic in origin. A vemous hum in the neck was most marked. The pulse was soft, of low tension, but not markedly accelerated. The urine contained one-sixth albumen, and was very pale in color. Three grains of the sulphate of iron was ordered thrice daily.

A fortnight afterwards I had the opportunity of making a careful examination of the blood. The corpuscles were found to be only eighteen per cent. of the normal number, while the hæmoglobin was twenty-three per cent. The corpuscles themselves were of various sizes, and formed rouleaux satisfactorily, but were soft and plastic. There was no leucocytosis. The blood appeared to make the naked eye obviously pale and watery. The urine at this time contained the merest trace of albumen, which entirely disappeared in a day or two. On examination of the eyes it was found he could not read ordinary print, and that there were large hæmorrhages into both retinæ, especially on the right side. The iron was discontinued, and liquor arsenicalis was ordered in 5-minim doses thrice daily. He was ordered to remain at home, and was allowed the most generous diet.

Four days after the commencement of the arsenic he had a fit, but when I arrived he had partially recovered, and was fairly sensible, with no paresis. He volunteered the statement that he now saw a red color when looking at the light.

A week after the commencement of the arsenic (which was never increased beyond 5 minims thrice daily) there was no further bleeding from the gums. He had complained for a fortnight of a beating noise in the head, "like a steam-engine." This (in all probability the beating of own heart) ceased now to annoy him. The urine was normal but very pale. He was allowed to move about his room. His appetite was extraordinary, and, beside the most nutritious diet of strong soups, meat, etc., he took three to four pints of milk daily.

In three weeks he was able to walk half a mile without fatigue, and in a month returned to work. The corpuscles on January 16 (five weeks after the commencement of the arsenic) were seventy-six per cent. of the normal number, and the hæmoglobin sixty per cent. of the normal quantity. The hæmorrhage into the retinæ had entirely disappeared, except for a slight blur on the right side. He could read small print and saw plainly. He continued the arsenic for another five weeks, and is now quite well.—*Therap. Gazette.*

THE INFLUENCE OF DIET ON THE GROWTH OF HAIR.—Several cases of shedding of hair after influenza have confirmed my opinion (E. D. Mapother, M. D.), that diet has much to do with the production and with the cure of symptomatic alopecia. Hair contains 5 per cent. of sulphur, and its ash 20 per cent. of silicon and 10 per cent. of iron and manganese. Solutions of beef, or rather, part of it, starchy mixtures, and even milk, which constitute the diet of patients with influenza and other fevers, cannot supply these elements, and atrophy at the root and falling of hair result. The colour and strength of hair in young mammals is not attained so long as milk is their sole food. As to drugs, iron has prompt influence. The foods which most abundantly contain the above-named elements are the various albuminoids and the oat, the ash of that grain yielding 22 per cent. of silicon. With care these foods are admissible in the course of febrile diseases, when albumen is the constituent suffering most by the increased metabolism. I have often found a dietary largely composed of oatmeal and brown bread greatly promote the growth of hair, especially when the baldness was preceded by constipation and sluggish capillary circulation.

Those races of men who consume most meat are the most hirsute. Again, it is well known in the Zoological Gardens that carnivorous mammals, birds, and serpents keep their hair, feathers, or cuticle in bad condition unless fed with whole animals and the egesta contain the cuticular appendages of their prey in a digested or partly digested state. It is also an old well proven fact that a closely restricted diet, cheese for example, soon produces in dogs a loss of hair.

In treating fevers a long course of non-nitrogenous diet may promote seborrhœa, which is so often a concomitant of the alopecia. When the special nutritive supply is secure, the depressed condition of the vasomotor and trophic nerves proceeding from the cervical ganglia to the scalp may be stimulated by blisters and liniments at the back of the neck. I have always found that friction of the scalp with pomades and lotions dislodges many hairs which might otherwise remain, and that cold or tepid baths with salt added and rough rubbing of the rest of the body will flush the capillaries of the affected part more effectually. Besides, when pomades are used, frequent washing becomes necessary, and this is conducive to baldness.

PATHOLOGY OF FACIAL PARALYSIS.— Professor Minkowski, of Strassburg, has made an important contribution to this subject. Cases of Bell's paralysis are common enough, but it is not often that an opportunity occurs of examining the abnormal nerve. The clincial history of the case was the usual one. The attack came on after exposure to cold, and when the patient was last seen there was well-marked reaction of degeneration, but there were indications of commencing return of voluntary power. The patient died by misadventure, and the result of the examination of the nerve is somewhat surprising. There was no difficulty in removing the nerve, no appearance of inflammatory compression in the bony canal, and the nerve coverings were quite normal in appearance. In the peripheral branches of the nerve nearly all the fibres examined were in an advanced stage of degeneration. Here and there were newly formed nerve fibres and others in process of regeneration. In the other branches besides those degenerated fibres were numerous well-formed normal fibres. Above the nerve to the stapedius the number of degenerated fibres gradually decreased, and at the geniculate ganglion the degeneration ceased entirely. In the superficial petrosal there were only isolated degenerated fibres, and this was the case in the nerve to the stapedius. No change was found in the fibres of this muscle. It will thus be seen that there was present no evidence of inflammatory action. The appearances seem rather to point to a change starting from the periphery, and the author suggests that this may be of the nature of a degenerative neuritis, the direct result of cold.—*Lancet.*

Habitual Abortion. — Dr. Schuhl observes that when the cause of abortion is unknown, not only must the practitioner see that treatment suitable to all cases is carried out, but he must insist that the patient rests in bed at least during the days in each month of gestation which correspond to her normal menstrual epochs. Sometimes it is best to keep the patient in bed altogether till delivery. The causes of habitual abortion are very numerous, but two unquestionably predominate. Retroversion is the first; the second is syphilis, whether maternal or paternal. That disease sets up pathological changes incompatible with the development of the fœtus. Paternal syphilis must always be suspected when abortion is very frequent in a woman whose pelvic viscera are absolutely healthy. Hence Dr. Schuhl finds that mercurial inunction applied to the husband is much the best treatment for habitual abortion of uncertain causation. Apart from the fact that patients and their husbands do not always admit that they have had syphilis when they have really suffered badly from that complaint, and are not always aware that they may have passed through a mild form, it is certain that a strict specific treatment has sometimes been followed by fertility, even where all evidence of syphilis has been absent both in patient and husband.—*Annales de Gynecologie.*

Diagnosis of Tubercular Meningitis in Children.—At a recent meeting of the American Pædiatric Association, Dr. W. P. Northrup read an interesting paper on this subject. He gave four symptoms which, when they existed together, were to him convincing evidence of the disease—persistent vomiting, irregular pulse, irregular breathing and apathy; there were also other significant symptoms connected with the organs of special sense. Professor Jacobi agreed with Dr. Northrup in the importance of the persitent vomiting as a diagnostic sign; the vomiting is apt to be marked when the meninges of the base of the brain are the seat of the tubercular deposit; if the tubercular deposit is not marked in this region the vomiting is apt to be less pronounced or absent. Distinction must be made between the cerebral type of vomiting, which is projectile and not accompanied by nausea, and that which is merely reflex or of gastric origin. Dr. Northrup traced the infection in one of his reported cases to the use of tuberculous milk.—*Am. Jour. Med. Sciences.*

Zinc Chloride Injections.—M. Lannelongue, exhibited at the Second Congress for the study of Tuberculosis, some thirty patients with tubercular arthritis, whom he had treated by means of injections of zinc chloride. In each case a plaster cast of the joint, as it was before the treatment was begun, was shown and compared with the actual condition. The oldest case had been under treatment only three months, and none had received over ten injections, yet all showed a marked diminution in the size of the joint, a finer tissue replaced the fungosites, and in some cases there was considerable painless and non-spasmodic joint motion possible. M. Lannelongue then demonstrated his method in a case of sacro-iliac disease accompanied with abscess and caries of the crest of the ilium. The solution employed was of the strength of one per cent., and two drops were injected at each point, the number of insertions varying according to the size of the joint, five or six being made in the case of knee-joint disease.

Cremation seems to have acquired a sure foothold in the Argentine Republic. Since 1886 the total number of cremations carried out there has been six thousand seven hundred and eighty nine: in 1890 alone they amounted to two thousand and eighty-five. A law exists in Argentina to the effect that the bodies of all persons dying of infectious diseases and the fragments that remain of corpses that have been dissected must be burnt.—*Chicago Med. Record.*

It is rumored that a memorial is about to be presented to the United States Congress asking for the creation of a Government Department of Public Health, with a Cabinet officer at its head, to be known as the Medical Secretary of Public Health.

MODERN SPECIALISM.

"The body has been parcelled out,
For doctors' benefit no doubt.
Divided up so very nice
That every one can get a slice.
To one they gave the fingers, toes,
Another gets the eyes and nose:
A third, more greedy for his part,
Has gobbled up the lungs and heart.
For his untiring, ceaseless pen,
They gave the pancreas to Senn."

THE CANADA LANCET.

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AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER, 23 Rue Richer, Paris.

TORONTO, DECEMBER, 1891.

The LANCET has the Largest Circulation of any Medical Journal in Canada.

THE BICHLORIDE OF GOLD.

The columns of the press, both lay and medical, are at present filled with allusions to the now famous treatment of inebriety by hypodermic injections of so-called bichloride of gold, as is practiced by a Dr. Keely at Dwight, Ill. There can be no doubt that whether the effect be of a moral nature or really due to the drug used, great and seemingly lasting benefit has been derived by the unfortunate victims of alcohol, who have sought relief from its clutches. We know of at least two cases where every other method having been tried in vain, the patients went to Dwight, undergoing the usual six weeks' treatment, returning cured as they say of any craving for stimulants; up to the time of writing no relapse has taken place, and a sufficient length of time has elapsed to prove that the injections are at least superior to any thing we have as yet met with.

But the question arises, What is the real nature of the remedy? It is claimed to be a preparation of the bichloride of gold and sodium, yet we cannot help thinking that perhaps cocaine is the active ingredient, or at all events one of them, the writer having found that hypodermic injections of $\frac{1}{8}$-$\frac{1}{6}$ grs. four times daily relieves the craving for both alcohol and tobacco. Some need the dose increased up to grs. $\frac{1}{4}$ or $\frac{1}{2}$, which latter may be given internally in distilled water. But care must be taken that too much be not given at first until the susceptibility of the patient has been tested, for fainting occasionally results from the use of cotaine, even when locally applied in applications the nose or throat. This effect is however transient, and is relieved by placing the subject in a recumbent position. This drug is rapidly making a name for itself apart from its well known utility as a local anesthetic. The writer, who has had quite an extensive knowiedge of its use in practice, can strongly urge its use in the following cases:—The vomiting of pregnancy he has frequently seen relieved as if by magic by gr. $\frac{1}{8}$ to $\frac{1}{4}$ in aq. dest. four times daily; as a cardiac tonic wherever indicated, in dose of gr. $\frac{1}{10}$ to $\frac{1}{4}$ three times a day; and to relieve the mental depression so generally met with in cases of gastric derangement, given in doses of $\frac{1}{8}$ to $\frac{1}{4}$ gr. one hour after meals, of course in conjunction with the usual remedies used, for cocaine is one of the most rapid stimulants known, causing clearness and brightness of the intellect within a few minutes of its ingestion. The only objection to its use is the fact that a cocaine habit is easily formed, and against this the practitioner must ever be on his guard.

PROGRESS IN PUBLIC-HEALTH WORK IN MICHIGAN.

In 1889, the Michigan State Board of Health resolved that the local boards of health throughout the State be urged to second the action of the State Board of Health by making "regulations" declaring typhoid fever a "disease dangerous to public health," which should be reported to the health officer in accordance with the law. Also that in the opinion of this Board all cases of so-called "typho-malarial fever" should be reported to the local health officer, and the same precautions taken as in cases of typhoid fever. Also that all cases of fever of doubtful origin continuing more than seven days should be reported to the health officer, and precautions taken as in other diseases dangerous to the public health, such as typhoid fever.

Since this action by the State Board of Health, it seems that a less proportion than formerly of the cases of fever are reported as "typho-malarial," and an increasing proportion of the cases of typhoid fever which occur, are, undoubtedly, being reported to the State Board of Health. The local boards of health are beginning to co-operate with the State Board; thus at its meeting, Oct. 16th, 1891, the

Board of Health of the City of Alpena adopted substantially the same resolutions as those adopted by the State Board; and restrictive measures for the prevention of typhoid fever are coming to be general throughout Michigan. There was need for it, because the vital statistics indicate that about a thousand lives a year were being lost in Michigan from this preventable disease.

The Secretary of the Michigan State Board of Health has succeeded in arranging with the United States authorities at Washington and New York, to have notice of names and destinations of all immigrants arriving at New York from infected vessels or places, who are bound for any part of Michigan. This enables the State Board to put local health officers on guard against the spreading of dangerous contagious diseases in Michigan by such immigrants.

ANNUAL BANQUET TRINITY MEDICAL COLLEGE.

The fifteenth annual banquet of Trinity Medical College was held at the Queen's Hotel, Toronto, on 19th November, and was one of, if not the most successful banquet ever held under the auspices of the college. The students turned out well, and the presence of an unusually large number of graduates of Trinity added materially to the success of the occasion. The Dean, Dr. Geikie, on behalf of Trinity Medical College, did full justice to the toast in an able speech, in which he referred to the very satisfactory and prosperous condition of the school, and he was applauded to the echo when he alluded to the extraordinary large freshman class of this year, it having been equalled in numbers only once in the history of the college. Dr. Mitchell, of Enniskillen, and Dr. Boeman, of Peterboro, made appropriate and very excellent speeches on behalf of the graduates, and in their allusions to the old tricks and jokes played upon the professors of their day fairly took the house. In addition to the members of the Faculty present we noticed Dr. A. J. Johnston, Dr. Allan, Dr. Milne, Dr. Millman, Dr. Story, Dr. Atcheson, Dr. Pepler, Dr. Barrick, Dr. O'Reilly, Dr. Harris, of Toronto; Dr. Stark, of Hamilton, Dr. Campbell, Newmarket, Dr. Boeman, Peterboro, Dr. Mitchell, Enniskillen, Dr. Wilson, Richmond Hill. The original intention of these gatherings was to be a re-union of the graduates, and we are glad to notice the tendency in that direction. Altogether about two hundred and fifty dined.

OVER-PRODUCTION OF MEDICAL MEN.

To the Editor of the Canada Lancet.

Sir,—It is beginning to appear to every thinking medical man that something of a radical nature must be done in the near future to prevent the terrible over-crowding of the profession in Ontario. From a financial standpoint the practice of medicine is living upon its reputation in the past, when it was really possible for the rank and file to amass a competence to tide them over old age and illness, and to this reputation is due the fact that from every village school-house and every other farm, students are flocking to the many Universities with which this Province is blessed (?), throwing away their chances of becoming comfortably independent as farmers or business men, degenerating as a rule, not without brilliant expectations certainly, into third-rate professional men, after four or five of the best years of their lives have been engaged in study.

Medical men are not producers, and whenever they exist in the community in greater numbers than the demand calls for are inimical to the progress and prosperity of the country; and good, energetic tradesmen, manufacturers, etc., are lost to the world, living a life of bitterness and semi-starvation in lonely offices, waiting for the patients whose visits are few and far between, and the bright dreams of youth dispelled by the bitter struggle for existence, which is perhaps keener in the ranks of medicine than any other profession, as the proportion of physicians to the population of Ontario is 1 to 500, a most lamentable condition of things certainly.

Young men who complain of this state of affairs are comforted by the sophistries of fond relations, who glibly tell them there is lots of room on the top. Yes; but while the struggle is so keen and educational advantages so equal as they are in this country, a dead level of mediocrity is about the highest point that can be reached in medicine, for young Napoleons of Physic are few and far between in any part of the world. How many of our most eminent practitioners are known outside of Canada? aye, even outside of the city or town they practice in? They could be counted upon the fingers of one hand, and that is the cold, naked truth.

Another feature indicative of the keen competition existing in Ontario, is the prostitution of medicine by the various societies, who for a meagre pittance, scarcely better than a colored waiter would receive for a tip, secure the services of a doctor, who must, as a rule, supply the drugs as well.

The fault is not the practitioner's, he must live and support a family; having been lured into medicine by the false hopes and ideals formed of a life of gentlemanly ease and affluence; and many a man, who would otherwise scorn to do "lodge work," is driven to it by stern necessity which knows no law. The fault lies in our erroneous system of over-education which prevails in Canada. Education is, in many cases, a curse instead of a blessing. Owing to it, the farms are being deserted. The young men are flocking to the cities to be hangers-on in real estate, businesses, or professions leaving strangers and aliens to till their fathers' soil. Education, theoretically, is a most excellent thing, and up to a certain point this is the truth; but it remains a fact that the pursuit of happiness and pleasure is the leading passion animating the human breast, and will ever remain so. Therefore, the system of compulsory education of this Province, planting the germ of diseased ambition in hundreds of brains, causing them to regard labor as degrading and unworthy of them, embittering their whole existence in the futile struggle for wealth, is wrong, and is doing Canada more harm than any other one thing.

People don't like to be told this, but it is nevertheless a fact. The Government of the country should close up some of the superfluous medical schools of this Province. One would be more than sufficient to cater to the needs of the community. But we might as well tell the waves of the sea to recede as to expect any thing of the kind to be done. It is clearly the duty of every conscientious practitioner to warn the young men of the country to avoid the profession of medicine; for Canada is a young country with sparse population, and stand in need of strong arms and willing hearts to build her up and develop her mines, manufacturing industries and agricultural interests, in order that, at a future date, we may take a place as one of the wealthiest nations of the earth.

MEDICUS.

Toronto, Nov., 1891.

DRAINAGE OF WOUNDS, ESPECIALLY AFTER URETHROTOMY.—Dr. Kinloch gives the following conclusions regarding the drainage necessary after urethrotomy (*Annals of Surgery*):

1. Urethrotomies for strictures of the penile portion of the urethra, including the meatus, require no artificial drainage. In case the urine is healthy, the natural passage of this is sufficient to prevent lodgment of blood or inflammatory exudates and subsequent decomposition, putrescency, and sepsis.

2. To insure against the action of unhealthy urine, the secretion must be modified before resorting to operation by the use of proper medicinal agents known to be efficient for this end. The bladder must also be treated as a preliminary, when its condition is such as to furnish diseased elements which give deleterious character to the urine.

3. If deemed necessary further to guard against the noxious character of the urinary secretions, the catheter *à demeure* must be resorted to for draining the bladder for forty-eight to seventy-two hours. The rigid English gum catheter is to be preferred to the soft rubber one, as less likely to be displaced.

4. After internal urethrotomies of the deep portion of the urethra, drainage is most essential. This cannot be properly secured by the mere use of the catheter, and, therefore, it is best to abandon such operation and to substitute for it a perineal section or external urethrotomy.

5. After this latter operation, drainage goes on securely, because of the direct external opening. It should, however, be more thoroughly insured by a *perforated* drainage-tube, reaching from the meatus, and made to project through the perineal wound; this is to be kept in place from three to five days.

6. Bladder drainage after perineal urethrotomy is not essential if the urine be healthy. By the voluntary efforts of the patient the urine flows readily from the bladder, and escapes through the perineal wound.

7. To better insure the escape of urine, however, through the perineal wound, and also prevent its contact with all lesions of the canal, a short tube, of large calibre and rigid walls, may be passed into the bladder from the perineal wound, and kept in position by a suture passed through the tegumentary edge of the wound. This tube may be removed after three days.

8. The use of non-irritating, antiseptic injections through the tube occupying the canal, furnishes an additional precaution against sepsis. The bladder may also be easily washed out by means of the tube used for draining it through the perineum.

MISTAKES OF PHYSICIANS.—The following (*Pacific Rec.*), seem to us as good a *résumé* of the errors of some of the cloth in certain directions as could well be formulated :

First—To promise a patient that you will cure him.

Second—To promise to call at an exact specified time.

Third—To promise that the malady will not return.

Fourth—To promise that you can render more efficient service than your fellow practitioner.

Fifth—To promise that your pills are not bitter or the knife will not hurt.

Sixth—To promise that the chill or fever will not rage so high to-morrow.

Seventh—To allow your patient to dictate methods of treatment or remedies.

Eighth—To allow yourself to be agitated by the criticism or praises of the patient's friends.

Ninth—To allow yourself to buoy up the patient when the case is hopeless.

Tenth—To allow yourself to make a display of your instruments.

Eleventh—To allow yourself to experiment or exhibit your skill uncalled for.

Twelfth—To allow yourself by look or action in a consultation to show that you are displeased and that if you had been called first matters would have been different.

Thirteenth—To allow yourself to indulge in intoxicating beverages.

Fourteenth—To allow yourself to rely wholly upon the subjective symptoms for your diagnosis.

Fifteenth—To allow yourself to tell the patient you are prescribing saccharum album when you are giving calomel.

Sixteenth—To allow yourself to give arsenic and quinine when a bread and water placebo will answer.

Seventeenth—To allow yourself to tell Mr. Smith the weak places and irregularities of habits in Mr. Jones' family.

Eighteenth—To allow yourself to give your services or an opinion without a reasonable fee or a reasonable expectancy.

BORAX IN EPILEPSY.—The treatment of epilepsy being in so inchoate a state, or, rather, we are treating the disease so empirically, that even though no *rationale* may be given, anything which promises relief to the sufferer is welcome. The following is from the *Lancet*: "Dr. Dijoud has tried this remedy—borax—in twenty-five cases, and he claims to have entirely cured one, and to have relieved all except six. The duration of the treatment varied from one to seven months, and he was able without inconvenience to carry the dose up to ninety grains a day. This was only possible if a beginning were made with small doses, which were gradually increased; and when the dose exceeded sixty grains daily he found it advisable to add some glycerine to the water and syrup in which the drug was usually administered. It should also be mentioned that the patients to whom Dr. Dijoud administered borax had been treated unsuccessfully with the bromides, and there seems now to be little doubt that in certain cases of epilepsy, borax is of very considerable use. It is desirable that particulars should be furnished of the time that elapsed between the cessation of the treatment by bromides and the inauguration of that by borax, as it is well known that epileptics who have been treated with bromides often improve much in their condition after the drug has been left off; and it is necessary to distinguish this improvement, which at least occasionally occurs, from that which may be due to the administration of a fresh remedy.

NEW YORK PASTEUR INSTITUTE. — Dr. Paul Gibier, Director of the New York Pasteur Institute, informs us of the results of the preventive inoculations against hydrophobia performed at this Institute during the first six months of the second year of its existence—February 18, 1891, to August 18, 1891. During this time 415 persons, having been bitten by dogs, cats, and other animals, applied for treatment. These patients may be divided in two categories:

1st. In the case of 345 of these persons it was demonstrated that the animals attacking them were not mad, consequently the patients were sent back, after having had their wounds attended to during the proper length of time.

2nd. In 70 cases the anti-hydrophobic treatment was applied, hydrophobia of the animals inflicting bites having been evidenced clinically, or by inoculation at the laboratory, and in many cases by the death of some other persons or animals bitten by the same dogs. Indigents have been treated free of charge.

The persons treated were: 17 from New York, 16 from New Jersey, 11 from Massachusetts, 5 from South Carolina, 5 from Texas, 3 from Connecticut, 2 from Maryland, 2 from Missouri, 1 from Ohio, 1 from North Carolina, 1 from Michigan, 1 from Pennsylvania, 1 from Rhode Island, 1 from Arkansas, 1 from Virginia, 1 from Mexico, 1 from West Indies (Curaçoa).

Deaths by hydrophobia after treatment.—Miram Adams, 5 years old, of South Farmingham, Mass., badly bitten July 14th last in nineteen places by a dog recognized to be mad. Treated July 15th to August 1st. Symptoms of hydrophobia appeared six days later (Aug. 6th). Died Aug. 9th.

Three other persons—two, sisters of the patient—and a man, bitten by the same dog, who received the same course of treatment, are now enjoying good health.

This, so far, is the only death by hydrophobia out of the 255 cases treated at this Institute to date.

Bell's Paralysis.—We have been so cock-sure regarding the pathology of facial paralysis and the theory fits the foramen so nicely that the following (*Lancet*) is rather a cooler: Professor Minkowski, of Strassburg, has made an important contribution to this subject. Cases of Bell's paralysis are common enough, but it is not often that an opportunity occurs of examining the abnormal nerve. The clinical history of the case was the usual one. The attack came on after exposure to cold, and when the patient was last seen there was well-marked reaction of degeneration, but there were indications of commencing return of voluntary power. The patient died by misadventure, and the result of the examination of the nerve is somewhat surprising. There was no difficulty in removing the nerve, no appearance of inflammatory compression in the bony canal, and the nerve coverings were quite normal in appearance. In the peripheral branches of the nerve nearly all the fibres examined were in an advanced stage of degeneration. Here and there were newly formed nerve fibres and others in process of regeneration. In the other branches besides those degenerated fibres were numerous well-formed normal fibres. Above the nerve to the stapedius the number of degenerated fibres gradually decreased, and at the geniculate ganglion the degeneration ceased entirely. In the superficial petrosal there were only isolated degenerated fibres, and this was the case in the nerve to the stapedius. No change was found in the fibres of this muscle. It will thus be seen that there was present no evidence of inflammatory action. The appearances seem rather to point to a change starting from the periphery, and the author suggests that this may be of the nature of a degenerating neuritis, the direct result of cold.

Treatment of Sprains.—Dr. N. W. Cady in a recent number of the *Medical Record* writes:—A recent number of the *Record* promises fame to the man who gives an unfailing remedy for sprains. Here it is in two words: A half hour's douching with water at a temperature of 120 degrees F., and the fixation of the joint by a splint on the flexor side of the joint, or upon the extensor side, if that be more convenient. For example, in a case of ankle sprain, after a half hour's steady douching with hot water at 120 degrees F., I prepare an anterior splint of ten to sixteen layers of mosquito bar, which is thoroughly filled by immersion in wet plaster of Paris. This is trimmed by spreading it on a board and cutting to shape with a knife. The length may be thirteen to sixteen inches, breadth four to six inches. Where the splint passes over the instep the edges on each side are folded over to make the splint narrower and thicker. A layer of cotton is then spread over the face of the splint and the splint is applied from base of the toes to about halfway up the leg and carefully secured and moulded by a narrow roller bandage. While the plaster hardens, hold the foot in whatever way is easiest to the patient. There is rarely any further complaint of pain if the splint fits neatly. This, with perfect rest, constitutes the whole treatment, which should continue at least a week, or until all extravasation is absorbed. Fourteen years' experience and observation of results obtained by other methods satisfies me that it is the best and most rational treatment.

The above is in keeping with what was advocated by us some years ago, but we are of opinion that many a sprain is yet treated by liniments and rubbing, and massage even, a most unscientific procedure.

CAUSES OF SUDDEN DEATHS.—Says *La Méd. Moderne* :—We are always astonished to notice how frequently physicians called upon to sign a death certificate in cases of sudden decease give as a cause, *rupture of an aneurism.*

Cerebral apoplexy rarely causes sudden death, and aneurisms only in the proportion of 5 per hundred, as proved by the statistics of Wynn Westcott, of London.

Of one thousand inquests noted by him, if we eliminate deaths caused by accidents, murders and suicides, and those of children under twelve years of age, there remains three hundred and three cases of sudden death. One hundred and eighty-five among the male sex and one hundred and eighteen among females. In one-third of the cases sudden death should be attributed to alcoholic excesses.

Westcott divides the causes into three classes:

1. The *syncopes*, 210 cases—15 ruptures of aortic aneurisms, 4 ruptures of the heart, 20 cases of valvular lesions of the heart, 3 cases of cardiac dilatation, 77 fatty degeneration of the heart, 10 hæmoptysis, 3 hæmatemeses, 2 metrorrhagia, 2 emboli, 3 perforations of the stomach or of the intestine, 2 cases of angina pectoris, 3 of *delirium tremens*, etc.
2. *Coma* 64—of which 20 were due to alcohol.
3. *Asphyxia* 29—œdema of the glottis, croup, convulsions, etc.

DURATION OF LIFE.—From *The Insurance Agent*, (*Southern Sanitarian*) we learn that a well-known German statistician has obtained the following statistics in regard to duration of life; The average is thirty-seven years. Before the seventeenth year a fourth of the population dies. But one person in a thousand attains the age of one hundred years; six in a thousand reach the age of sixty-five years; 35,214,000 persons die during each year; 96,480 each day; 4020 each hour; 67 every minute; while there are born 36,792,000 annually, 100,800 daily, 4200 hourly, and 70 in each minute. The average duration of life is greater in the married than the unmarried individuals, among civilized than among uncivilized communities; while tall people are longer-lived than those of shorter stature. The chances for life, as regards men and women, are more favorable for the latter before the age of fifty, for the former after that age. Married persons bear the proportion to single ones as seventy-five to a thousand. Those born in the spring are more robust than those born at other seasons of the year. More deaths and births occur during the night than during the day.

THE THERAPEUTICS OF MUSIC.—An article has been going the rounds of the medical press, on the therapeutic value of music. It is sincerely proposed to employ this "therapeutic agent" scientifically in the treatment of disease. We have not copied it, as we can see nothing practical in it. Indeed nothing can be more chimerical. The blue glass craze was sense as compared to it, notwithstanding Shakespeare's dictum that "some men, when a bag-pipe sings i' the nose, cannot contain their urine." The following airs have been suggested by the *Med. Press*, as suitable for the cases enumerated, viz:—Retarded labor from inertia, "Comin' Thro' the Rye:" Cases of chronic deafness, "Come Back to Erin:" Epilepsy, "Let Me Like a Soldier Fall:" Pyrexia, "The Coolin:" Melancholia, "The Heart Bowed Down:" Cases of doubtful diagnosis, "Oh, Dear! What Can the Matter Be?"

IODOFORM INJECTIONS IN GOITRE.—Dr. Kapper, an Austrian military surgeon, has employed, says *The Lancet*, in fifteen cases, with invariable success, Mosetig's plan of injecting iodoform emulsion into soft thyroid tumors. In every instance there was a diminution in the circumference of the neck amounting to from 8 to 10 cm. Antiseptic precautions were employed, and in some cases where the tumor was of considerable dimensions several syringefuls were injected into different parts of the parenchyma. In order to ascertain whether the needle has entered the gland the patient is asked to swallow, when, if it has so entered, the downward movement of the syringe shows that the needle has been carried upward. In some cases the injections were repeated daily for several days, in others at intervals of a few days. In no cases were any untoward symptoms produced.

FOR INGROWING TOE-NAIL.—Dr. Puerckhauer recommends (*Memphis Med. Monthly*) a novel and simple, and, at the same time, competent treatment for ingrown toe-nail: A forty per cent. solution of potassium is applied warm to the portion of the nail to be removed. After a few seconds the uppermost layer of the nail will be so soft that it can be scraped off with a piece of sharp-edged glass; the next layer is then moistened with the same solution and scraped off; this must be repeated until the remaining portion is as a thin piece of paper, when it is seized with a pincette and lifted from the underlying soft parts and severed from the other half. The operation does not require more than half an hour's time, is painless and bloodless, while the patient is delivered from his suffering without being disabled even for an hour.

CIRCUMSCRIBED PATCHES OF PSORIASIS.—The following is recommended for small patches on the scalp:

℞—Acidi pyrogallici,		
Ichthyol,		
Acidi salicylici, ...	āā	4 to 5.
Vaselini, ...		35.—M.

Or, for isolated patches:

℞—Saponis viridi,		
Vaselini, ...	āā	20.
Ichthyol,		
Acidi salicylici, ...		2.
Acidi pyrogallici, ...	āā	1.—M.

Daily frictions should be made and continued, unless the scalp becomes irritated.

BELLADONNA IN LABOR.—Dr. Aasher, of Lithgow, New South Wales, advises (*Australasian Med. Gazette*) the use of belladonna in the early stages of labor, having found it of immeasurable benefit, saving considerable pain to the patient and materially diminishing the expected period of the labor. In primiparæ, after a prolonged period of pains of more or less intensity, and with but little dilatation of the os, as well as in the more intense condition of a completely rigid os, where, with extreme contractions, no dilatation whatever occurs, he has given large doses of belladonna with marked effect. He usually prescribes a reliable tincture of belladonna in doses of twenty to thirty minims every hour, or oftener; and satisfactory dilatation usually follows the first or second draught.

MENSTRUATION IN THE MALE.—Paul Albrecht (*L'Anomale*) draws attention to the fact that white blood corpuscles appear in the urine of men at regular intervals, are present three or four days, and then disappear. This he interprets as a kind of menstruation. The idea is not a very strange one, for it is a known fact that men with excessive hypospadias menstruate. He offers this as another proof of the independence of menstruation and ovulation. It is to be hoped that further investigation will afford a clearer exposition of the subject.

DR. ROTHE (*Brit. and Colon. Druggist, Coll. and Clin. Rec.*) uses for erysipelas the following:—

℞ Creolin		1½ parts.
Cretæ præp.		
Adipis, . . .	āā	15 "
Ol. menth. pip. . . .		gtt v.

This is spread in thickness of the blade of a knife over the diseased parts two or three times a day, a thin layer of cotton-wool being applied as a covering. In from twelve to twenty-four hours improvement was always apparent, and the disease was cured in three or four days. The same ointment did good service in weeping eczema of the face, as also in several cases of eczema in children. A patient suffering from scabies was treated with thorough washing with soft soap and inunction of this ointment with such a decided effect that he considers creolin to be a specific for the disease.

A CORRESPONDENT of the Washington *Star*, who has been studying the subject of getting rid of fleas, gives this as the result of his investigations: If those who are troubled with this insect will place the common adhesive fly-paper on the floors of the rooms infested, with a small piece of fresh meat in the center of each sheet, they will find that the fleas will jump toward the meat and adhere to the paper. I completely rid a badly infested house in two nights by this means.

Removal of Mother-Marks.—The *Allgemeine, Medicinal Central Zeitung* gives the following as very efficacious: Mix one part of tartrate of antimony with four parts of emplastrum saponatum and work into a paste. Apply the mixture over the mark to be removed to the depth of one line (one-twelfth inch), and cover with a strip of gummed paper or court plaster. On the fourth or fifth day suppuration sets in, and in a few days later scarcely a sign of the mark can be seen.—*Amer. Med. Jour.*

Sulphonal in the Night Sweats of Phthisis.—Dr. Erede says (*Br. Med. Jour.*) that sulphonal, given in the early hours of the evening, in doses of from 8 to 16 grains, almost invariably succeeds in suppressing or invariably diminishing the night sweats of phthisis. He is inclined to think that the effect of sulphonal in checking diaphoresis is to be explained by its action on the nervous system.

Ringworm.—In obstinate cases of ringworm the following is a very successful formula:

℞—Hydrargi bichloridii, . . .	gr. ij.
Tr. benzoin comp., ...	℥ j.—M.

Paint over affected part. This should be used once a day for two or three consecutive days. It should not be applied if there is excoriation, as it is irritating.

Pyridin in Gonorrhœa.—*Therap. Monats*, says that three or five injections of the following are sufficient to give relief:

℞—Pyridini, ...	gr. v.
Aq., ...	℥ iij.—M.

Sig.—One injection daily.

For Headache.—In many cases rebellious to all other medication, Pescarolo has obtained (*Nov. Rém.*) good results with the following mixture:

℞—Antipyrine, ...	4 parts.
Phenacetine, ...	2 "
Antifebrine, ...	1 "

He supposes that the favorable action is due to a new body which is formed in the mixture.

Salicylate of Soda as a Cholagogue.—Prof. German Sée, in an article on hepatic colic, published in the London *Lancet*, lays special stress upon the use of salicylate of soda for the expulsion of gall-stones. Unlike the well-known cholagogues it stimulates biliary secretion without increasing the solid elements of the bile, but increasing the fluid element it thus aids in the expulsion of the gall-stones.

Migraine.—The following powder is recommended, in *La Medicine Moderne*, for the treatment of migraine:

℞—Citrate of caffeine, . . .	gr. jss.
Phenacetin, ...	gr. ij.
Sugar of milk, ...	gr. iv.—M.

Sig.—Take at once, to be repeated if necessary in the course of two hours.

Corrosive Sublimate as an Antiseptc.—Dr. Ahl has shown by a great number of bacteriological and chemical researches, that the application of heat increases the antiseptic power of corrosive sublimate solutions. A cold solution of 1 to 1000 has less antiseptic action than a solution of 1 to 10,000 heated to 40° C., and the latter does not cauterize and thus prevent rapid union of wounds.

Books and Pamphlets.

Ptomaines, Leucomaines and Bacterial Proteids, or the Chemical Factors in the Causation of Disease. By Victor C. Vaughan, Ph.D., M.D., Professor of Hygiene and Physiological Chemistry, University of Mich; and Frederick G. Nevy, Sc.D., M.D. Second edition revised and enlarged. Philadelphia: Lea Brothers & Co., 1891. Toronto: Carveth & Co.

This second edition will be read with much interest. The fact that germs are pathogenic is now an accepted one, and the study of the poisonous products which they elaborate in their life-process in the blood or tissues must be regarded as of the supremest importance in the study of the diseases which they cause. Immunity, an article on which appears in the columns of this issue, demands a careful study by every scientific and practical man, and now that such immunity is being sought by the aid of bacterial products, this line of thought must be of the greatest interest to all scientific students of medicine. The work comprehends, we believe, all that is known on the subject up to the present date.

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THE CARDIAC PHENOMENA OF RHEUMATISM.*

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Rheumatism occurs with much less frequency in this country than in England and the northern parts of Europe. Some years ago there were at one time ten cases of heart disease in the Toronto General Hospital, and all were from England and had acquired the disease in that country. The reason for our greater immunity is to be sought for probably in our dryer climate chiefly, but largely also in the mode of living in the two continents. Our poorer people live on a much more bountiful diet, of a better quality, than their peers in the old land and are better housed, and are therefore better able to resist such climatic influences as are supposed to bear a causative relationship to the disease. Nevertheless, rheumatism, with all its untoward phenomena, occurs with painful frequency in this country, as is attested by the relatively large number of cases of heart disease met with, and the great majority of them own a rheumatic origin.

On few diseases has more been written, and in no disease is there a greater feeling of uncertainty as to the cause, than rheumatism. On but one point, apparently, are most agreed, viz.: that the disease is due to some poison in the blood, and to the irritation of such poison is due the widely-distributed lesions resulting. As to the nature of this poison opinions are almost as varied as their authors; but most of them can be included under two classes, viz.: first, those holding the cause to be a chemical irritant, as lactic or uric acid; and, secondly, those believing it to be a bacterium, probably a micrococcus or a bacillus. It is very probable that both may be correct—that the group of phenomena included under the term rheumatism is not a simple disease, depending upon a single cause, but rather a series of diseases with similar phenomena, produced by a variety of causes. We can scarcely explain the multiform characters of rheumatism, acute and chronic, in any other way.

If on further investigation it is found that bacteria are capable of producing rheumatism, it will probably be found that they are the always active agents in the causation of acute rheumatism, mild or severe, and then, of course, also of the heart lesions occurring in rheumatism

Recently it is reported that the staphylococcus albus was constantly found in cultivations from the blood of a case of chorea with acute endocarditis, and, once, the S. aureus;* there is little room to doubt that the chorea in such a case was simply a manifestation of rheumatism.

German pathologists are becoming more and more unanimous in viewing primary endocarditis in all its forms as due to germs of some kind, the resulting changes in the endocardium, whether thickening, warty excrescences, or ulcerations, being due simply to difference in virulence of the germs.

Whatever the cause of rheumatism may be, it is constant in its selection of tissue to attack—the fibrous structures only are primarily affected, but these may be in the most varied situations. We have so long associated the term rheumatism with the swollen joint, fever and sweat, that we have come to look upon all other manifestations as accidents or complications. But the affections of other fibrous structures are quite as essential a part of the disease as the joint inflammation, and this broader conception of the disease is forced upon us by the study of these other phases, especially as met with in children, in whom the joint affection is usually mild, and often wholly absent. The so-called growing pains may be due to a neurosis, or a rapid development of epiphyseal cartilages.† Yet the great majority of them are rheumatic, but, on account of the plumpness of the child's limb, usually show no swelling; however, even the mildest of them may be accompanied by the most serious cardiac disease.

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* The address on Medicine, Ontario Medical Association, Toronto, June, 1891.

* *Brit. Med. Jour.* supplement, '91, vol. I., 149.

† Jacobi, *Med. News*, 1886, vol. I.

It is necessary to refer briefly to other ways in which rheumatism may manifest itself, especially the more unusual. One of the most important, and probably least frequently recognized, is rheumatic inflammation of the throat. It is common among adults at certain seasons, and not infrequent in children. In many cases it recurs repeatedly. Last year there was a girl, aged 12, in the Hospital for Sick Children of this city, who presented a good example of this form of rheumatism, recurring from time to time. She had marked stenosis of the mitral orifice with a protracted history. The endocardium appeared to have been the seat of mild recurrent rheumatic attacks, which caused gradual, but in time, extreme narrowing of the mitral orifice. The condition of the heart was verified by the autopsy after her death at the Girls' Home.

Another case occurred in the practice of my friend, Dr. James McCallum. The child, four years old, was supposed by the parents to have diphtheria; but there was no membrane. The left shoulder was found tender and somewhat swollen, and further examination revealed a well marked endocarditis of longer duration, probably, than either the arthritis or the throat disease.

Occasionally the rheumatic process shows itself in an attack on the subcutaneous tissues, causing the formation of nodules over the bony prominences. This may be the only sign, or it may occur with articular inflammation. There was such a case in the Hospital for Sick Children last year. The boy had slight inflammation of the wrists and ankles, and at the same time many nodules up to the size of a bean formed over the occiput, the spinous processes of the vertebræ, the scapulæ, the iliac crests, the elbows and the tibiæ. They all disappeared quickly with the recovery from the rheumatism. There was also disease of the mitral valve with regurgitation, of which he has since died. Such nodules are of more frequent occurrence in England, and are sometimes found to persist. They appear to be more frequently met with in association with pericarditis.

The various aspects of erythema multiformæ are frequently due to the same cause. With them may be included many cases of urticaria. Erythema nodosum is possibly always of rheumatic origin, and should be treated as a probable sign of that disease. Other unusual phenomena as possibly of rheumatic origin are inflammation of such serous membranes as the pleura, peritoneum and meninges, of the sclerotic coat of the eye, and of the nerves. It is probable also that mild attacks of rheumatism occur without showing any local changes. In these, local inflammations may possibly occur in the deeper tissues beyond the reach of examination—there seems no reason why such tissues should escape the influences of a poison whose powers are so potent upon superficial tissues.

In cases with any of the foregoing, as well as with the commoner manifestations of the rheumatic process, the heart may become involved—simultaneously or as a sequel, or, what is of special importance to remember, it alone may be the seat of attack. Hence the rheumatic heart lesion is not an accident in the history of any case, unless, indeed, all local inflammations—whether of the joints or other parts—are to be looked upon as accidents; so that it should be included among the list symptoms of rheumatism. Probably the heart is affected oftener than any single joint. We cannot insist too strongly on the importance of being on the alert to the fact that, in children, especially, any sign of rheumatism, be it never so mild, is liable to be accompanied by disease of the heart, it may be, of the most grave character. As the signs of rheumatism, when latent, may so readily escape our observation, I would urge the necessity of examining the heart in all pyrexial attacks of uncertain origin when they occur in children, otherwise we may miss for days a lesion of the heart, which, had we known, we might have mitigated, if not prevented.

Cardiac lesions seldom occur in the adult apart from an acute attack of rheumatism. After the third decade, our chief anxiety in regard to our patients with acute rheumatism is in connection with the future usefulness of the joint; while with our younger patients we have little fear as to the complete recovery of the joints, our anxiety now is almost wholly concerned with the heart. The younger the child the more probable is it that the rheumatism will fasten on the heart to the exclusion of the joints or other structures.

In the adult there is probably, as Sibson* found, a striking relation between the degree of severity of the articular affection and the frequency as well as the intensity of the heart disease. He found that in only 25% of all his severe cases did the heart present no signs of affection. This relationship probably becomes more pronounced with the advance of age, that is, it is closer at 40 than that at 25 or 30 years of age. The exact numerical relationship between heart disease and rheumatism at the different ages is very difficult, not to say impossible, to determine, because slight attacks of endo- and pericarditis readily escape detection, even by the most acute observers. But there is no doubt that Dr. Church's results are sufficiently near the truth to illustrate the great preponderance of cardiac affections in young subjects. He found the percentages of cardiac disease in the successive decades up to 50 years of age, to be 83, 69, 51, 30, 21.† These results indicate practically that in infancy rheumatism always attacks the heart, and after infancy up to ten years, the heart escapes in very few cases, and it is to be borne in mind that at this age rheumatism is almost always mild, often latent even. The occurrence of symptoms of acute articular rheumatism in children should be viewed with suspicion, as many, if not most of such, are not rheumatic, but due to sepsis, causing inflammation of periositeum, bone medulla and similar structures. Some cases have been reported of late as rheumatism that bear strong evidences of being due to septic poisoning.‡

No adequate explanation has been offered to account for this greater proclivity to heart disease in rheumatic children. It seems to me probable that their strong tendency to anæmia has a causative relation. Cheadle says that all such children early become anæmic, and my own experience accords with his. Bramwell§ and some others, however, believe anæmia less liable to develop in children than in adults, but the instability of the nervous system in children often masks the actual anæmia existing by disturbance of the vaso-motor system. The relationship of anaemia, as a predisposing cause, is strikingly borne out by the greater frequency of rheumatism in females from 11 to 15 years of age, in whom it is said to be three times as frequent as among males of the same age* ; and females at this age are peculiarly liable to anæmia. In this manner we may account, at least partly, for the greater frequency of mitral stenosis and chorea among females.

Next to age, the occupation and general condition in life have most influence in the productions of heart disease in rheumatic cases. Perhaps these have more to do with the degree, rather than the occurence of the disease. The ill-nourished, and insufficiently clad, living in unhealthful surroundings, furnish the greatest number of victims. These conditions render such people more exposed to the causes of rheumatism and more vulnerable to its influence.

The influence of sex is worthy of note. In youth, females are more liable, because their labor and exposure are quite as great as males, and they are much more frequently anæmic. Sibson says that young females with rheumatism are nearly always attacked or threatened with endo- or pericarditis or both. In after life males are most frequently the subjects of cardiac disease, owing to their greater exposure and labor, perhaps also on account of their greater indulgence of the appetite.

Of the cardiac affections, endocarditis is much the most common, the mitral area being especially vulnerable. Endocardial inflammation generally begins early in the rheumatic attack—in the first week usually, but may occur in the second, the third, or even the fourth week. The more severe the rheumatic attack the greater the liability to the endocarditis. If the patient escapes for the first week, and, is under suitable care and medication, some believe that the heart should be secure from attack. It is the general opinion that endocarditis is proportionately much more liable to occur in second, and still more so in third atttacks of rheumatism, even although the successive attacks be less severe. There is a very probable fallacy in this view. No doubt in many cases of rheumatism there occurs inflammation of endo- or pericardium, or both, without manifesting any signs of its existence ; permanent thickening of the endocardium may, however, result, and become at the affected points more vulnerable to the rheumatic poison in subsequent attacks. This offers the only reasonable explanation of this greater liability to cardiac implication in repeated attacks of rheumatism, as otherwise the liability should decrease with advancing age and lessening in severity in the recurrent attacks. The truth of this is further borne out by the experience we have probably all had of cases who, having convalesced from rheumatism, have passed out of our hands without any signs of cardiac lesions that could be detected, and who sometime later showed unmistakable evidences of heart disease, it may be, of a most serious nature. The greater frequency of heart disease in several attacks of rheumatism was believed by Sibson to be due to the increased strain thrown on the heart by the severity of the disease.* The fibrous structures subject to most strain seem to be most liable to attack; the increased labor of the heart may, therefore, induce inflammation of its fibrous structures.

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* Reynolds' system.

† St. Bartholomew's Hosp. Rep. vol. xxii, p. 273.

‡ I would commend to your notice a paper by our friend Dr. Peters, to be read in Surgical Section.

§ Diseases of the Heart.

*British Collective Investigation Record.

In children, as with rheumatism, so it is with its cardiac phenomena, they are nearly always mild and trivial; all may disappear for a season, yet they too often recur, soon to persist, until the valve injury becomes serious, and finally fatal. In the rheumatism of children the slightest causes may induce relapses. They frequently tax the patience of the physician, and too often shake the confidence of the parents in his skill and treatment. In these recurrent attacks lies the danger to the child, as with each he becomes increasingly liable to disease of the heart. If the heart becomes once affected the lesion is sure to increase with each relapse.

Such cases of rheumatism call for the most judicious management perseveringly carried out, until the rheumatic condition has been wholly eradicated.

(*To be continued.*)

* * *

Salol in Infantile Diarrhœa.—Dr. Hirtz (*Lyon Med.*) finds that vomiting and diarrhœa of infants speedily yields to the administration of the following powder, twice daily:

℞—Salol, ... gr. iij.
Laudanum, ... gtt. j.—M.
Ft. one powder.

THE PRACTICAL BEARINGS OF COLOR BLINDNESS.*

BY G. STERLING RYERSON, M.D., L.R.C.S., ED.,

Professor of Opthalmology in Trinity Medical College, Toronto.

The earliest case of color blindness which has been recorded is that of the shoemaker Harris, which was reported by Mr. Huddart in 1777. In 1794 the English chemist Dalton described his own defect. His name has since been attached to this curious and interesting condition. Dalton stated that to him "the color of a fluid complexion seemed dull opaque, blackish blue on a white ground. Diluted black ink on white paper gives a color much resembling a fluid complexion. Blood appeared not unlike that color called bottle-green. Grass appeared a very little different from red The face of a laurel leaf is a good match for a stick of red sealing wax. Green woolen cloth appeared a dull brownish color." Harris, the shoemaker, noticed that he could not tell the cherries from the leaves except by their form. Since Dalton's time, Seebeck and Stilling, in Germany, Wilson, of Edinburgh, Donders, in Holland, and Joy Jeffries in the United States, have done much to elucidate this matter, but it is especially to Prof. Holmgren, of Upsala, Sweden, that the greatest credit is due for placing our tests on a sound scientific basis. He adopted the theory of color of Young, and upon it founded his tests.

As regards the different varieties of color blindness, Dr. Joy Jeffries, in his book on "Color Blindness," thus quotes Holmgren's work:

"We classify the different kinds of color blindness under especial heads, to be able the better to grasp the whole. We might, indeed, divide this blindness into congenital and acquired; but as such a division has reference alone to the mode of origin, and not to the nature of this blindness, and effects in no wise the manner of its discovery, it has no practical importance in the case now occupying our attention. Besides, our division relates, as does our entire memoir on this subject, essentially to congenital color blindness. The division is as follows:

"I. Total color blindness, in which the faculty of perceiving colors is absolutely wanting, and where the visual sense consequently can only perceive the difference between darkness and light, as well as the different degrees of intensity of light.

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* Reynold's System of Medicine.

* Read before the Ont. Med. Association, June, 1891.

"II. Partial color blindness, in which the faculty of certain perceptions of color, but not of all, is wanting. It is subdivided into—

"1. Complete color blindness, in which one of the three fundamental sensations, one of the three perceptive organs of color in the retina, is wanting, and in which, consequently, the colored visual field has but two ranges. This group includes three kinds, namely—

"(*a*) Red-blindness.

"(*b*) Green-blindness.

"(*c*) Violet-blindness.

"2. Incomplete color blindness, where one of the three kinds of elements, or perhaps all, are inferior in excitability or in numbers to those of the normal chromatic sense. Incomplete color blindness exhibits, like the normal sense, three zones in the visual field, but is distinguished from it by an unusually small central field. This group includes the whole of a series of different forms and degrees, a part of which—the superior degrees, which might be called *incomplete red-blindness* and *incomplete green-blindness* (and *incomplete violet-blindness*)—constitutes the transitions to the corresponding kinds of complete color blindness; and another part of which—the inferior degrees, which we call a feeble *chromatic sense*—constitutes the transition to the normal sense of colors."

Of the various tests, the most important are Stilling's, Donder's, Chibret's and Holmgren's. Testing by lanterns and flags is tedious, but may have to be resorted to occasionally.

The causes of color blindness are congenital defect, heredity, severe illness, or injury, particularly to the spine and head, and excessive use of alcohol and tobacco.

The influence of fog, mist, snow, rain and steam, on signal lights is important. A white lantern exposed to snow and rain, by absorption of light from the dimmed glass, may appear green to the color blind, who depends on the intensity of the light to guide him. So also may a green light appear red. By the accidental use of thicker or thinner glass (red or green) the difference in the intensity of the light may be destroyed, and hence arise all the conditions for the occurrence of dangerous mistakes. Steam also effects the colors of the light. As seen through different pressures it may appear red, green or violet. The importance of this fact is self evident. It should always be borne in mind that the color blind, judge of color by the *intensity of the light alone*, and that turning a white light up or down represents to him the different colors. With regard to this, Dr. Wilson, of Edinburgh, writes, "How often it must fall to the lot of engine drivers to watch lamps through an atmosphere which will convert a safety signal (white) into a danger signal, completely alter the color of the green signal, and so darken the danger signal (red) as to render it invisible." Dr. Jeffries further remarks: "In the even slightly color blind, his only means of distinguishing the signals will be gone, viz., the difference in the intensity of the light."

Dr. Jeffries elsewhere writes: "A red and a green light appears to excite one and the same element in the retina of the red-blind. A ray, red and green, must seem fundamentally to the red-blind to be one and the same color, and if, in special cases, he knows how to discriminate, his judgment is simply guided by the intensity of the light.

The reason that *accidents traceable to color blindness* are not more frequently heard of is, that the public are not informed of many minor accidents which occur, and, even in more serious ones, the reporters have great difficulty in getting at the facts. Also familiarity with the road teaches engine drivers to expect certain signals at certain places, and it rarely happens that both engine driver and firemen are color blind, though such a misfortune has happened. As might be expected from the uncertain conditions of water travel, accidents due to color blindness are more common on the water than on the land. A collision took place in 1875, between the steamers *Lumberman* and *Isaac Bell*, near Norfolk, Va., which was distinctly proved to have been due to color blindness of the pilot of the former vessel.* Ten lives were lost. Another case was the loss of the steamer *City of Austria*, in the Harbor of Fernandina, Florida, in 1881.†

Mr. Bickerton, of Liverpool, gives also details of collision in St. George's Channel, January, 1888, between the *Toronto* and *Fredis*, and the notorious case of H. M. S. *Vanguard* and *Iron Duke*, as proved to be due to same cause.*

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*Annual Report for 1880 U. S. Inspector-General of steam vessels.

†*Shipping and Mercantile Gazette* and *Lloyd's List.*

Having thus, as far as the limited time at my disposal will permit, discussed the nature, causes, peculiarities and mode of detection of color blindness, I invite your attention to the remedy for this condition. When congenital, it is incurable. When caused by injury or disease it may be cured.

Exercising the ears with the names of the colors, and the eyes with sensations of color, help the color blind to supplement their eyes, but it *does not increase the color perception.*

As regards its frequency, I have tested nearly seven thousand public school children and students, and have found about four per cent. among the boys, and ½ per cent. among the girls. This is rather below the average of other observers who find five per cent. among the male sex. Color blindness is a great disadvantage to dry good merchants and painters.

In sailors and railroad employees of certain grades it is a great source of danger to the public. The only safety for the public is the elimination of the color blind. At present this is not sufficiently done. I have for the past five years questioned railroad and seafaring men with whom I have come in contact, and I am convinced that only the extremely color blind are eliminated by the crude and imperfect methods employed. So that color blind are employed and normal eyed are rejected by incompetent examiners.

It is also necessary that the men should be re-examined periodically, having in view the effect of tobacco, and especially after severe illness or injuries. In most of the states the examination is controlled by law, as it is also in many countries of Europe. Here it is left to chance. In my opinion, the officials of a road that through carelessness or other cause allow a color blind to run an engine, should in the event of an accident, be indited for manslaughter, should death result therefrom. Such an accident would be preventable and the company should be made to pay therefor.

In conclusion I would express the belief,

1. That the color lists made by railway and marine authorities in Canada are imperfect.
2. That danger arises to the public from this cause.
3. That it is urgently necessary that this danger be obviated by the proper elimination of the color blind from among the employees.
4. And that the men should be re-examined periodically, particularly after severe sickness or injury.

LACHRYMAL ABSCESS WITH FISTULA.

BY JOHN W. S. M'CULLOUGH, M. D., C. M., ALLISTON, ONT.

Ruby———, æt. 8, was seen at my office for the first time on Oct. 9th. She was suffering from lachrymal abscess, and the swelling having been freely poulticed had opened below tendo palpebrarum. She had been in this condition since June last. Two days later, under an anaesthetic, the lower punctum and canaliculus was freely opened with a Liebrich knife, the sac washed out with 10 vol. peroxide of hydrogen and with some difficulty and a No. 3 probe passed down the narrowed nasal duct. The probing was continued daily for a week, and the sac washed through the fistulous opening. At end of the week a No. 4 probe was used and at intervals of two or three days larger probes up to No. 6 were used, the washing being continued along with weak astringents in the eye.

At the end of the third week the fistula closed but opened again in a week. The washing through fistula was renewed for two or three days and coming out through the nose freely, showed patency of duct. The fistula closed and has remained closed since (a month) and the case is cured. There is no epiphora left, and the eye and its appendages are as well as they ever were.

I cite this case as an evidence of the value of peroxide of hydrogen. I have used it in diptheria (spray) with marked success.

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MRS. C. P. HUNTINGTON has given the Directors of the New York Post-Graduate Medical School $2000, a sum sufficient to defray the expenses of a Lying-in Department for one year. Professor von Ramdohr will have charge of this department at 543 East 13th St., where instructions in Obstetrics will be given to graduates in medicine only.

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* "Sailors and their eye sight."—Dr. Bickerton, of Liverpool, *Brit. Med. Jour* 1888.

Reports of Societies.

GYNÆCOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE.

NOVEMBER MEETING.

The president, Dr. Wm. E. Moseby, in the chair.

Dr. John Morris gave an address entitled "A Parting Word upon Obstetrics."

I began the practice of obstetrics forty-six years ago, and for the first four years kept a record of my cases. The first year I attended 35 cases. I was associated with Dr. Hintze, who at that time had a very extensive general practice, and who was very often called to assist midwives in their troublesome cases. I kept a careful record of my first 200 cases, but after that I abandoned the record, a fact which I have since very much regretted.

My first case was a very unfortunate one; I attended the patient in my student days. This woman was in the country, and was in labor three days. At the end of that time I sent for Dr. Hintze, who delivered her with the crochet. On account of the long impaction of the head, the whole of the anterior wall of the vagina sloughed away. The woman is still living, but so much tissue was destroyed that it was quite impossible to close up the opening, and all these years the urine has been passing from her as rapidly as secreted.

My second case was a black woman, who had a prolonged labor. I had never seen the forceps used, but tried to put them on and failed. After a while the child was born without any artificial assistance.

One of my great difficulties in my first cases was to find the cervix. I had never had any practical instruction in obstetrics, and did not know that in the first stage, before much dilitation, that the os is usually found far back against the sacrum.

Among other things that I think I have learned is how to shorten labor. One of the best means of accomplishing this is by external pressure. I learned that from my master, Dr. Hintze. Another was to pass the cervix around the occiput; and I found that these, too, shortened labor very considerably. I think I acquired the art of preserving the perineum. I believed in keeping the head under control, and not allowing it to be delivered too rapidly. In Ireland I learned how to preserve the perineum when using forceps. The secret is, simply to change the axis of traction as the head comes to the perineum, first upwards, perpendicular to the bed, and then carrying the handles far over on to the abdomen of the mother.

I have found that midwifery is underrated in the profession; but I am convinced that in no branch is there greater opportunity to display skill and judgment. This branch is esteemed much more highly now than formerly.

Formerly in conditions of rigid cervix it was the practice to bleed. I have done it many times, but it would not be tolerated now.

I am convinced that hot water injections will assist in relaxation. I have no faith in belladona.

I have been fortunate in not seeing any cases of hæmorrhage. I believe external pressure, used during labor, will prevent post-pastum hæmorrage.

For the first ten years I used ergot in nearly every case during the second stage, but have not used it now for fifteen years. In cases of delayed labor I now prefer the forceps to ergot.

The crochet has gone out of use, but formerly it was used frequently. Often the woman was injured, and not unfrequently the doctor's fingers suffered. Dr. Hintze had a glove to protect his fingers. We had at that time no chloroform, and often in transverse positions the woman would die undelivered because it was not possible to turn and deliver. I have not habitually used anæsthetics, except in forceps cases, I have thought they prolonged the labor, but I always use chloroform when any force is to be resorted to.

I have never used the binder, because I could never see the philosophy of it; it will not stay in position, and it is absurd to think it controls hæmorrhage. The only good that I could ever see that it accomplished was to please the woman.

When to use forceps.—Always use forceps when labor is delayed in the second stage. The old forceps were a much weaker instrument than the ones constructed on the Tarnier principle. I think the Tarnier forceps the greatest advance in obstetrics in my time.

In placenta previa, and in abortion, we formerly used a tampon made of a handkerchief, rags, cotton or anything that could be had. These tampons were dirty and dangerous. Later I have used only the colpeuryntur; it assists to dilate the os, as well as being the most efficient tampon. It is clean and harmless.

Opium is the best thing to relieve pain in labor. It does not arrest the labor; when the os is dilated it increases the contractions.

Dr. F. E. Chatard exhibited to the Society the obstetrical instruments used by his grandfather, 1810--1840, and also those used by his father, 1835-1875. He stated that he had used external pressure with apparent good effect.

Dr. Wilmer Brinton stated that external pressure was used by primitive people. He thought that in rigid os he had gotten good results from the administration of chloral in fifteen grain doses every fifteen minutes and three doses were given, as recommended by Playfair. But the number of cases in which he had given chloral was small.

Dr. G. Lane Taneyhill had used chloral per anum with great satisfaction in three cases. In less than an hour the os had been considerably dilated, and delivery was effected in each case within three hours, other remedies having failed. He had learned this treatment from our learned fellow-member, Dr. Williams — he uses 30 grs. chloral in milk.

Dr. P. C. Williams thought it was very important to consider agents to relax the parts. Chloral, in 40 to 60 gr. doses per anum, had given good results, but sometimes it, as well as chloroform, fails to completely relax the cervix. In his earlier experience he had encountered many cases of post partum hæmorrhage, but since he had made use of a practice that is condemned by most obstetricians--that of giving ergot before chloroform—he had not had a single case of hæmorrhage. He had seen no harm result from this practice, but thought he had in this way shortened the labor.

The objection to morphine to relieve pain, is that it nauseates badly afterwards. Chloral must be pushed to get good effects. The objection to it is, that sometimes it leaves the patient more or less delirious, and may seriously depress the heart if given too frequently.

Dr. William S. Gardner had used chloral in fifteen grain doses repeated every fifteen minutes in a series of cases, and found that while the patients had very little relief from pain, that a large percentage of them would be made sick at the stomach, and the discomfort caused by the disagreeable taste of the drug and by the vomiting following its use, more than counter-balanced the little good it did, and its use in this way was abandoned.

He gives it frequently for the relief of false labor pains. A dose of 30 grs. will almost invariably relieve the pain and put the woman to sleep.

Dr. Wm. P. Chunn had used chloral a number of times, but could get no positive evidence of its value; but it does not seem to obtund the pain, If opium will do this, it might be advisable to use it.

Dr. L. E. Neale was surprised that a discussion as to the value of chloral should be brought up. He thought that the time for discussion of that subject had passed.

Whether it would act more efficiently by the rectum or by the stomach he did not know. But he thought 60 grs. too large a dose, and would be afraid to use that much as an ordinary dose by the mouth.

The remarks were entirely too general to admit of special discussion.

Selected Articles.

ADENOIDS OF THE NASO-PHARYNX IN CHILDREN—THEIR EFFECTS AND TREATMENT.

(Continued from December Number.)

III. *Effects upon the Ear.*—In no organ are the effects of the continued presence of unhealthy adenoids of the naso-pharynx so certainly injurious to the functions of that organ as they are in the ear. My own experience leads me to believe that in every case, without exception, where there have existed for a certain length of time in the post-nasal space excessive adenoids which have been the seat of unhealthy inflammatory processes, there supervenes, sooner or later, middle ear complications, which impair to some extent the power of hearing; and, as a rule, this impairment is progressive in its nature. Further than this, in this part of the world, by far the greater number of all cases of impaired hearing are to be attributed to the existence at some time of these adenoid growths.

Exactly how the inflammation spreads from the naso-pharynx into the middle ear has been the subject of much discussion. The important factor is thought to be the interference with normal respiration, due to the nasal stenosis caused by these growths. Some authors consider that this interference produces rarefaction of the air in the post-nasal space, and this, together with the closed condition of the Eustachian tube-mouth, causes a rarefaction of the air in the mindle ear, giving rise to hyperæmia of its mucous membrane, which, in turn, is the cause of the condition of affairs to be found in middle ear catarrh.

In this view, undue importance is given, I think, to the rarefaction of the air in the post-nasal space; for the nasal stenosis in the class of cases under consideration is, though often high in degree, seldom complete; and the general atmospheric pressure is such, that one is forced to believe that though this opening through the nose into the supra-pharyngeal space may be small, the atmospheric pressure will always remain the same in the naso-pharyngeal space that it is outside the body —the air in this space being, however, comparatively stagnant. Doubtless the rarefaction of the air in the middle ear has much to do with the production of the middle trouble in these cases; but this rarefaction is, perhaps, due altogether to the closure of the Eustachian tube, or to causes impeding the proper movements of its mouth. Direct inflammation of the Eustachian tube-lining may bring about this closure, though it is probable that this is the cause in only a relatively limited number of cases. In about one case in every three of adenoid growths of the naso-pharynx—perhaps in one-half the cases, that have come under my observation—there have been adhesions between some part of the mass of the adenoid tissue and the Eustachian tube-mouth, or there have been developed beneath the reflection of the mucous membrane from the Eustachian tube-mouth to the pharyngeal wall, masses, larger or smaller, of adenoid tissue, which served more or less as an impediment to the free movements of the tube-mouth. This adenoid tissue exceptionally will be found to extend over the tube eminence into the mouth of the tube, and in contracting, as this tissue does after existing for a time, will cut indentations into the tube eminence just as though the mouth was bound down with a cord. Generally, however, the adenoid tissue development concerns only the outer posterior, under an upper aspect of the tube-mouth. It seems highly probable that these adenoid adhesions of the tube-mouth are, to no little degree, responsible for the catarrhal conditions of the middle ear, for they interfere with the natural movements of the tube, and cause either undue patency, or undue closure of the tube entrance.

In the great majority of cases of ear-ache in children, there will be found a concomitant diseased condition of the adenoid tissue in the naso-pharynx; and the household remedies of hop-bags, and the thousand and one solutions for instillation into the ear (none of which are superior to warm water or oil) meet no other indication for the treatment of the disease than the endeavor to relieve the moment's pain.

So also most of the cases of "running ears" in young children find their prime cause in diseased adenoids, plus certain other factors.

IV. *Effects upon the Lungs*—That the growths in question are oftentimes an assistant cause to the production of many of the inflammatory conditions of these organs, must be considered as true. They are not the direct cause, as they often are, for instance, of the catarrhal rhinitis. The blame that must be laid at their door is that they cause nasal stenosis, and so compel the inspiration of u warmed, unfiltered air into the lungs; and, furthe their influence upon the general health, a point which will be touched upon later on. Bronchitis and pneumonia are the two lung troubles that occur most frequently in these cases. And while the case histories of the children that come for treatment for some manifestation of these post-nasal adenoids so frequently tell of one or the other of these troubles, that a causative influence in the adenoids as the permanent trouble must be suspected; still surrounding the children are so many other conditions of life which might have a determining influence on these diseases that it is impossible to determine the exact causative importance to be attributed to nasal stenosis. Most writers, however, rightly agree that this causative importance is great.

True asthma has been said to be sometimes dependent upon these growths. In children, there is often a difficulty of obtaining sufficient breath while lying down, when the post-nares is filled with these growths; but this condition is generally associated with hypertrophy of the tonsils in these cases. I have never seen a case of true asthma from this cause.

V. *Effects upon the Stomach and Intestinal Tract and thus upon the General Health.*—In young children, the stomach, among its other offices, acts as the drip-cup for the pharynx and naso-pharynx. To clear the throat effectually requires a muscular effort of which young children are incapable, which is awkward for them to learn, and to make efficient use of which, children must reach a certain age, and in many cases require to be taught—it being natural for them to dispose of the pharyngeal secretions in another way. Gravitation allows a certain, though perhaps small, part of the naso-pharyngeal secretions to run out at the nostrils; the remainder, not being absorbed *in situ*, must be disposed of, and, running down into the pharynx, is swallowed, and finds its way into the stomach. When the adenoid tissue of the naso-pharynx becomes what are generally known as adenoid vegetations, the amount of these secretions becomes considerable; and when, under certain conditions — especially, perhaps, diathetic ones—these vegetations take on a chronic inflammatory nature, the amount of matter secreted by them would, could it be measured, surpass greatly the belief of those who have given the matter a thought. This catarrhal exudation from the post-nasal space finds its way into the stomach; sometimes this exudation has more or less of a purulent nature, sometimes it is retained in the post-nares long enough to undergo certain chemical changes. Furthermore, the nature of these discharges, and their surroundings, affording, as they do, moisture, and warmth, is such that they must be the breeding-ground for innumerable germs of different kinds, and often enough, under certain conditions, of germs capable of originating disease. Certain parts of these discharges, when in the stomach, require a digestive effort to dispose of them, and a certain amount of them must past into the intestines.

Fischer has lately written an article showing the relation between naso-pharyngeal catarrh, and gastric catarrh, in which he lays particular stress on the pharyngeal discharges—more correctly from the diseased adenoids of the naso-pharynx. These discharges, when in in the stomach, act perhaps in several ways to produce gastric trouble They, during certain conditions of the adenoid inflammation, are being more or less continually poured into the stomach requiring a more or less continuous digestive effort, resulting in abnormal activity of the gastric glands.

It is probable that certain of the constituents of the naso-pharyngeal secretion interferes with the proper digestion of food when it finds its way into the stomach, by producing chemical changes in it. The "large quantities of catarrhal (usually muco-purulent) exudation" (Fischer), at times to be obtained by washing out the stomachs of children suffering from diseased adenoids, make it highly probable that the stomach tries, in its efforts, to expel all this continually increasing mass of exudation from the naso-pharynx, and that it accumulates then in the stomach, where its presence is sufficient to produce gastric inflammation.

And without going here further into the question, it may be added that consideration of the question makes one believe that not a few of the intestinal troubles of children are directly due to the presence in the intestinal tract of this naso-pharyngeal secretion—the trouble being produced either by the germs brought down in the secretion, or by chemical disintegration of the secretion, or to disorders in the digestive processes caused by the presence of excess of these discharges.

Before leaving the subject of adenoids in children, it may be well to notice one or two other points.

A child with enlarged adenoids of the naso-pharynx does not necessarily mean an unhealthy child, for frequently, in perfectly healthy children, this post-nasal tissue is hypertrophied. But if there be superadded in these vegetations, an inflammatory process, such as is the rule where this tissue is developed to an excess, the effects of the continuous discharges from these growths will, sooner or later, to some degree, make its influence felt upon the health of the child; and where the child has a weak constitution to start with, the effect of the adenoid discharges will be potent factors in keeping the constitution weak.

Much has been written about a condition of mental sloth, a seeming distaste for study, etc., in children, with excessive adenoids. This is probably due to the condition of eye-refraction, together with unpleasant sensations of malaise accompanying these growths where excessive.

Treatment.—Certain points in regard to the treatment of post-nasal adenoids must be reserved for the article in which the question concerning the ætiology and further history of these growths will be considered. The remarks here on treatment apply to the treatment of these growths when existing in such quantities, or in such conditions, as to cause affections of the nose, eye, etc.; the proper treatment of which affections is the treatment of the diseased adenoids.

A few applications of yellow oxide of mercury salve will, in most cases, cause a phlyctenular conjunctivitis to heal in a few days, but a yellow oxide salve will not prevent its recurrence; and so warm water in the ear of a child suffering from earache, due to adenoids as a first cause, often temporarily relieves the pain, but it does not remove the inflammatory ear trouble, nor prevent the deafness which is so often going to follow, nor any of the troubles consequent upon diseased adenoids.

In theory, it seems proper to rely upon the use of a spray to induce a healthy state of the adenoids in the naso-pharynx; but, in reality, sprays in the case of young children do but little good, and, in most cases, when one considers how they are used, they do no good at all; so that it is merely a waste of money and time to purchase them.

In the early stages of the adenoid trouble, when the tissue is only moderately hyper-developed, one may look for some good from astringents applied to these growths; but considering the difficulty of making a thorough application, the use of astrigents is to be recommended in only a very limited number of cases.

The one treatment to be recommended for these diseased adenoids is removal, and the removal of the adenoids behind the naso-pharynx is the one proper treatment for all the active troubles resultant from their presence. The use of acids and the electro-cautery are not to be recommended as the means of removal, both being at times the cause of harm. While the complete removal of these growths would probably be advisable in young children—*i. e.*, in children under six or seven years of age—this is not always practicable, as they will not submit to the insertion of a palate retractor, without the use of which it is impossible to say when all of this tissue has been removed.

With children under seven years of age, and with older children, who can not be made to submit to the use of the palate retractor, chloroform is necessary, or, at all events, its administration is to be preferred to forcing the struggling child to submit to the operation without it. A condition of sem narcosis is all that is needed, and is to be preferred to complete narcosis, inasmuch as the work can be done without much danger of the child draining any of the blood from the wound into the larynx. For the removal of these growths, some form of post-nasal forceps or snare may be used—different operators preferring different instruments. With young children we have to be satisfied, as a rule, with removing enough of the diseased tissue to remove the obstruction to nasal breathing, waiting until the child gets older to accomplish a complete removal.

When the child becomes old enough to submit to the introduction of the palate retractor (and that invented by Dr. Joseph A. White, of this city, is by far the best instrument for the purpose), the removal of this tissue becomes, with a properly constructed pair of of Lœwenburg's forceps, an easy matter; for when the palate retractor is in place, the naso-pharynx is in the rhinoscopic mirror, and is as plainly visible as the palm of the naked hand, and all that is required for its removal is a knowledge of what ought to be seen in the post-nares, the exercise of some judgment as to what to remove, and the instrument for removal. A properly applied 4 to 6 per cent. cocaine solution so deadens the growths that, as a rule, there is little or no pain caused by their removal. The hæmorrhage, except in the case of "bleeders," is seldom troublesome, nor is there need of any after-application to the wounded surfaces, which heal, as a rule, rapidly.—John Dunn, M. D., in *Virginia Med. Monthly.*

COMMON ERRORS IN THE TREATMENT OF DISEASES OF CHILDREN.

In a lecture delivered before the post graduate course in the London Hospital for Sick Children, Dr. W. B. Cheadle (*Practitioner*,) calls attention to some of the more common errors in the medical treatment of children, some of which are survivals of old methods based upon the imperfect pathology and physiology of a former day,—of traditional rule-of-thumb practice. A routine practice once established holds its own with remarkable tenacity long after the data upon which it was originally founded have been abandoned as untenable.

Other errors, again, have arisen from hasty and erroneous deductions based upon insufficient knowledge, especially with regard to the physiological action of remedies; for there is a disposition to accept too readily the reputed action of new drugs, and it is quite appalling to observe how recklessly new and powerful drugs are administerted before their complete physiological action has been finally determined. Nevertheless the mistakes which are most pregnant of mischief are those which occur with the feeding of infants; yet these mistakes are very common, and Dr. Cheadle classified a number of errors under this head, the more important of which are the following:

1. *The Sudden Weaning of Infants on to Fresh Cow's Milk and Water.*—This is a frequent source of disaster. The massive curds which distinguish cow's milk when brought into contact with the acid of the stomach are frequently beyond the feeble digestive powers of an infant; dilution only diminishes the quantity of the casein, it does not alter its character, and the undissolved clots under the favoring conditions of heat and moisture ferment, and set up colic, vomiting, diarrhœa. Unboiled milk readily becomes sour, and affords a favorable soil for putrefactive bacteria and disease-germs. Both clinical experience and actual experiments show that boiling milk sterilizes it as far as the putrefactive bacteria and disease-germs are concerned. And yet, as has been well remarked by Dr. Jeffries, while older people are fed almost entirely upon sterilized—*i. e.*, cooked—food, infants are fed on an unsterilized food peculiarly adapted to serve as a cultivative medium for bacteria. Boiled milk, moreover, clots less firmly and massively than raw milk, hence it is more digestible. Children should be weaned on to boiled milk, with barley-water, which appears to separate the curd atoms, and hinder massive coagulation.

In the case of very young or very delicate children, however, the milk should always be peptonized at first, the degree of peptonization being gradually reduced. Whatever form of milk is used, the solution should be sufficiently dilute to begin with, the strength being gradually increased.

2. *The Feeding of Children on a Diet which is Excessive or Deficient, either in Gross Quantity or in Certain Essential Ingredients.*—The following are the chief errors in this respect:

a. Insufficient Gross Amount of Nutritive Material.—For instance, a child is found unable to digest any mixture of cow's milk stronger than 1 in 4, and it is kept upon this. But the capacity of the stomach is limited, and it is impossible for it to take a sufficient quantity of this mixture to supply the material required for growth and full nutrition. The difficulty may be easily overcome by the addition of some of Valentine's meat-juice and cream, pending a very slow and gradual increase in milk as the child's digestive power develops.

b. Food Deficient in Fat.—This element is of especial importance in the food of children. And yet they are constantly brought up on a diet sadly wanting in it, as, for instance, most of the artificial foods, whether purely farinaceous or containing desicated animal matter. Some condensed milks are deficient in cream, while skimmed milk is practically destitute of fat.

c. Food Deficient in Proteids.—The same thing may be said with regard to deficiency of proteids. Children, especially those with whom cow's milk does not agree, are frequently placed solely upon some artificial food, which does not supply the necessary quantity of nitrogenous matter without the addition of milk.

The removal of a portion of casein by rennet in "artificial human" milk is sometimes carried to excess, and continued too long. Children starved of these two elements are often large and fat, but flabby, anæmic, and rachitic. Indeed, this defect in food is one of the chief causes of rickets.

d. Absence of Antiscorbutic Element in the Diet.—Another not uncommon error is to overlook the the necessity that the food given should possess the antiscorbutic property.

Fresh milk contains the element in sufficient quantity; but all farinaceous foods, and all the dry artificial foods, even these containing desiccated milk or egg, are wanting in it. It is apparently greatly weakened, if not destroyed, by the process of sterilizing milk or condensing it. Many of these artificial foods are good as far as they go, but all require the addition of some fresh element, such as milk, to supply the antiscorbutic property. This point is constantly overlooked; cow's milk is found to cause dyspepsia and diarrhœa, and is replaced by a manufactured food.

e. Prolonged Use of Artificially-digested Foods.—Another error, now growing common, has arisen from the discovery of the value of predigested food,—the practice of maintaining children on peptonized or pancreatized foods for too long a time.

These preparations do excellent service in the case of children just weaned, or with small power of digesting cow's milk. If, however, these predigested foods are continued for months, nutrition falls off; the child becomes flabby, soft in bone, and in the end strikingly anæmic. Moreover, the power of digesting curd is seriously impaired, so that there is often great difficulty in changing afterwards to ordinary milk-foods.

The Treatment of Infantile Diarrhœa and Constipation.—The diarrhœa of young children is most commonly due to the irritation of the mucous lining of the intestine by undigested and decomposing articles of food, aided, perhaps, by the influence of ptomaine poisons in causing paresis of the splanchnic nerves, undue stimulation of the vagus or derangement of secretion or digestive juices. It also caused apparently by irritation reflected from the dental nerves in teething, setting up increased peristalsis in the same way.

Now, in the first case, it cannot be wise to acquiesce in the condition by which nutriment is passed out, some of it partially digested and what is digested hurried on too rapidly to permit of absorption. There can be nothing curative or beneficial in the process.

In the second case, when the flux is due to reflected irritation in teething, there can be no advantage in the nutrient drain which the increased peristalsis involves. Many, although not all, of these attacks of diarrhœa during the period of teething, and attributed to reflex dental irritation, are in reality due to direct irritation of the alimentary canal, the dentition being merely a coincidence, or only subsidiary by rendering the mucous membrane more excitable. So far from diarrhœa being a safe-guard against convulsions, it is precisely those children who have been drained by diarrhœa and vomiting who are most liable to these.

Little children bear continued purging badly. Metabolism is active, and the loss of nutrient material tells heavily upon them. The mere drain of fluid is in itself alone a grave matter. Look how, in choleraic diarrhœa, they dwindle and wither rapidly, and, with pinched faces and sunken eyes, shrink to half their former size almost. Although the diarrhœa may not be severe,—three or four loose stools a day only perhaps,—the risk of permitting such flux to run on uncontrolled in a young child is a serious one. A diarrhœa which begins moderately, and which excites no apprehension, but is viewed perhaps with satisfaction, is apt to develop dangerous proportions within a very short period, and to reach a point beyond control of medicine. It is easy to keep it within limits if it is held in check from the first. But when it rages with full violence, drugs may have little or no effect.

In every case of diarrhœa in a young child, however slight, it is wise to get it under control at once. It is not necessary to induce absolute constipation, but to bring the action of the bowels to natural limits. The younger the child, the more important this becomes, the risk being in inverse proportion to age. An infant is very easily killed by vomiting and diarrhœa during the first few months of life.

In the first place, as to food. Usually, if the child is on cow's milk, it is stopped absolutely. So far, so good. If milk is given at all, it should be peptonized and diluted with a little barley-water.

Give nothing which is not sterilized, nothing but what is predigested or easily digested. Do not, however, commit the mistake often made of giving nothing but barley-water or veal-broth. These supply fluid, but little else; they do not yield sufficient nutriment. In the tendency to collapse, a meat essence is of great service, and ten drops of Valentine's juice should be given in a dessertspoonful of water every four hours.

With regard to the use of drugs. As a rule, astringents are given and opium carefully avoided, as being dangerous in the case of little children. Astringents, such as hæmatoxylum or catechu, are useless in the acute stage, and opium in some form is essential in anything like a severe case. Gray powder with Dover's powder in small and frequently-repeated doses should be given if there is much vomiting. Bismuth, the insoluble nitrate, in doses of 5 to 10 grains with chalk, and $\frac{1}{8}$ or $\frac{1}{4}$ or $\frac{1}{2}$ minim liquor opii sedativus, according to age, are the most efficient remedies.

In the treatment of chronic constipation three devices only appear to be adopted as a rule:

1. The administration of more or less active purgatives from time to time, sometimes once or twice a week, the remedy being repeated as often as the bowels become confined again.
2. The use of enemata, sometimes regularly every few days, for lengthened periods.
3. The inclusion in the diet of coarse foods and fruits, oatmeal, cabbage, prunes, figs, and the like.

Adults are generally treated more sensibly than children; they are given, perhaps, a daily dinner pill, or sent to drink laxative waters at some spa. But with children treatment is almost invariably limited to the three stock measures above named.

Now, if the constipation is only occasional,—an exceptional difficulty,—a free purge or enema may end the trouble and cure the complaint. And if the constipation is slight only, the use of stimulating foods containing insoluble *débris* may be sufficient to keep the bowels acting. But if they are not successful, remember they do positive harm by favoring hard accumulations and excretions.

If, however, the constipation is recurrent or habitual, and obstinate,—*chronic*, in a word,—none of these measures will be adequate to effect a cure. The relief given by a brisk purgative, if frequently repeated, tends to defeat its own end, and to retard, not hasten, the ultimate cure.

The purgatives lose their effect after a time; the frequent stimulation of the bowel renders it less sensitive. Stronger and stronger purgatives are required, the constipation grows more and more difficult to overcome; at last the bowels, rendered callous to stimuli, refuse to act, except in response to powerful irritant purgatives or enemata. The colon, its muscular wall in a condition of atony from over-stimulation, habitually distended by fæcal accumulation and evolved gases, and not unfrequently by repeated copious enemata, becomes largely dilated, and utterly inert. The last state of the patient is apt to become worse than the first. The attempts to cure have in reality aggravated the condition.

Now, this state of chronic constipation in children requires treatment, and treatment by drugs. It is productive of many evils. In many cases, cachexia and febrile disturbance from fæcal poisoning. Sometimes night-terrors, recurrent febrile or bilious attacks, sick headaches, anæmia, loss of appetite, feeble growth, sometimes emaciation and hysteria. Sometimes nothing but the inconvenience and discomfort and pain of passing hard and massive stools. These things require to be remedied, but not by the means so generally adopted.

Treatment, to be effective in such cases, must be *continuous*, not intermittent. The constant daily use of some mild laxative is essential to ultimate success.

Night-Terrors.— Children from two or three years old up to five or six, or even older, are liable to what are called "night-terrors." They wake out of sleep, or rather do not fully wake, but start up in a condition of great distress, calling out, screaming, or crying. They seem dazed, half-conscious, cannot be roused so as to take rational notice of the mother or nurse, and cannot be pacified. The state of screaming, crying terror may last for hours. This form of disturbance varies in degree from mere restlessness and crying in sleep to almost maniacal delirium.

Such cases occur usually, but not invariably, in delicate, sensitive, neurotic children, and they are, in most instances, cachetic or ill-nourished. The parents are filled with apprehension that some serious brain-disease is at the bottom of the trouble. The doctor, recognizing the neurotic element, and going no deeper, usually prescribes brmides, often with good effect for the time. Now, these attacks are simply childish nightmare. There is usually, but not invariably, a neurotic disposition underlying the disturbance. The actual disturbance itself is directly due to some super-added source of irritation, central or reflex, most commonly the latter. The administration of sedatives, such as bromide and chloral, only subdues the manifestations, does not cure the complaint.

The direct sources of irritation are undue stimulation of the brain,—as of the imagination, by exciting stories; the rough treatment and terrorizing of an unscrupulous nurse; a visit to the zoological gardens, and dreams of bears and lions; or over-work in school.

More frequently, however, the irritation is reflex,—sometimes, but not often, a round worm in the intestine; sometimes indigestible food at night. But by far the most common cause is constipation, often slight but persistent, the stools being hard, dry, and often light-colored.

The point especially to be enforced is the futility of the mere sedative treatment almost invariably relied upon; as a rule, nothing else is done; "it is all nervousness," doctor and parents agree.

Now, the great object should be to discover the cause of irritation and remove it. If the cause lie in overstimulation of the brain by exciting stories, or overwork, or terrifying threats, or other fears, these must be stopped. In such cases the bromides are, indeed, most useful aids. They do not suffice alone.

If the cause, as by far most often happens, is constipation, the daily administration of laxatives with strychnine will cure the affection, bromides being administered for a short period at first until the exciting cause is removed.

Antipyretics in Acute Disease. — Among the drugs most heedlessly used at the present day are those which have the property of reducing bodily temperature, such as aconite, antipyrin, and antifebrin.

These remedies are extremely powerful, and in some cases dangerous and even poisonous. In certain extreme or special cases it may be necessary to resort to extreme and special means for bringing down the body heat. These temperature-lowering drugs are, however, too readily resorted to. Pyrexia is a symptom of disease, not the cause or essence of disease. The temptation to use such drugs is great: there is the morbid condition of raised bodily temperature attested by the thermometer, and the means ready to hand which will reduce it,—a result also absolutely demonstrable by the thermometer. It is a case in which an appreciable effect can be obtained by the administration of a remedy, and an effect which is apparently beneficial. But there is another side to the question. You cannot turn these agents on to influence the heat-centres only. Most of the drugs which have a marked influence upon the temperature are cardiac depressants. Aconite has such a powerful effect upon the circulation that even a few doses of a single drop of the tincture will perceptibly lower the pulse; sometimes a small dose renders it feeble and irregular. Indeed, grave consequences follow its too free use. Most serious collapse has resulted from a dose of 3 grains of antifebrin. Antipyrin, in the full doses required to produce marked antipyretic effect, not unfrequently causes vomiting, and occassionally collapse.

Drug Treatment of Debility, Anæmia, and Rickets.—One of the most universal mistakes, although perhaps not one of the most serious, is that of relying largely or chiefly upon drugs in the treatment of these diseases of defective nutrition. Children are apt to be dosed with cod-liver oil and preparations of iron and phosphates indiscriminately, without regard to the condition of their digestive functions and their fitness for the reception of these materials at the moment.

Thus, a delicate child, with feeble appetite, is drenched with cod-liver oil and syrup of phosphates because it is, flabby, ill-nourished, and anæmic. The tongue is coated, the bowels confined The child is perhaps, over-fed already by rich foods. The chief cause of the anæmia and defective nutrition and want of appetite is the disordered state of the functions of digestion, absorption, and fæcal excretion. A few doses of calomel, or grey powder, followed by a tonic, with some saline laxative and judicious feeding, will do far more to remedy the anæmia and debility than cod-liver oil and syrups of iron. These are excellent remedies in their proper place; but, in these conditions of disordered function, they do more harm than good. They intensify the digestive difficulty, and take away appetite. When the disorder is rectified they may find their place again.

This habit of giving syrup of phosphates, or cod-liver oil, or both indiscriminately, whenever a child looks pale, or seems languid or deficient in flesh, has spread from medical men to the mothers and nurses; so that these drugs have become almost regular articles of diet in many families, to the detriment rather than advantage of health.

In the case of rickets, again, far too much reliance is placed upon treatment by drugs. Rickets is a diet-disease, at any rate in the main. Milk or cream, raw-meat juice, sun-light, and fresh air are better medicines than any to be found in the Pharmacopœia.

Local Treatment of the Throat in Diphtheria.—The cruel and useless practice of swabbing out the throat with caustic applications in diphtheria of the fauces has died out; but this method of applying astrigents, such as perchloride of iron, or antiseptics and solvents, still survives.

The diphtheria wards in the hospitals affords exceptional opportunities for observing the effects of various methods of local treatment; and, from long observation, Dr. Cheadle has no hesitation in condemning as injurious the system of brushing out. And this for several reasons. In the first place, on account of the distress it causes to the patient. In the case of a young child it involves a severe struggle; sometimes the help of two or three persons is required to overcome the fierce resistance, and to open the mouth and reach the fauces. It causes terror, excitement, heart-strain, and physical exhaustion,—conditions most inimical in a disease tending to death by asthenia,—and the distressing process has to be repeated frequently if it is to be effectual. Moreover, apart from this matter of the wear and tear involved, the rough treatment of the fauces probably does harm by causing abrasions of the surface, and thus favoring absorption of the local poison. We know how readily fresh raw surfaces of all kinds take up poisons which come in contact with them. Witness, for example, the communication of scarlet fever in surgical operations, the absorption of morphine from a blistered surface. If the diphtherial poison is rendered more available for circulation by the application of solvents, the infective absorption is liable to be still greater.

Not only are the patients saved great distress, and doctors and nurses much trouble and anxiety, by the abandonment of the brushing-out process, but the results generally have been more satisfactory. Insufflation with iodoform or sulphur, or spraying with boric acid or corrosive sublimate solutions, are far more easy of application, and more effectual in antiseptic action.

Among other errors in treatment of which the author makes mention are oppressive poulticing of the chest in pneumonia, obstructive to respiratory movement, and tending to increase the body heat; the administration of emetics in diphtheritic croup, which is utterly ineffectual except to depress and exhaust the patient; their frequent repetition in bronchitis and whooping-cough when there is no extreme mucous obstruction of the air-passages to justify it; the too free purging of rickety children suffering from laryngismus and convulsions, under the belief that irritant matter in the alimentary canal is the sole cause of evil.—*Therap. Gaz.*

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A THEORY OF SEX.

Some years ago I placed on record in the pages of the medical journals a short statement regarding a theory of sex which it seems advisable to recapitulate at greater length, if only by way of affording opportunity for the discussion of this interesting and fascinating topic. Regarding a theory as a guide to the elucidation of truth, and considering a correct theory as one which explains all the facts and is contrary to none, I submit my views for criticism on this rational basis. It may be proved that I have erred in my conclusions through the deficiencies of my premises, and that my notions of sex evolution are untenable altogether; but at the most and best I submit my views as constituting a provisional and tentative hypothesis only, and as one which subsequent research will either confirm or altogether refute. Beginning thus with a free hand, let me briefly state the gist of the theory in question. It is a tolerably safe maximum in biology, and in other departments of science as well, that we should not ascend into the clouds for explanations of things which lie at our feet. Sex should be, and is, no more mysterious as to its origin than, say, the nature of liver functions or of pancreatic duties. It only presents greater difficulties, perchance, in the way of solution, and is environed by more complex conditions than is the question of hepatic work. Yet to discover the conditions to which the causation of sex is due, we may not go far astray if we search among the common functions and actions through which life at large is maintained and conserved. Amid such functions, that of nutrition stands out in bold relief as one which exercises a very prominent influence on the development of living tissues. Sir James Paget long ago pointed out how nutrition affected development, and Herbert Spencer has emphasized this teaching in many ways in his biological discussions. In so far as the origin and determination of sex are concerned, it is therefore a perfectly just observation that nutrition is likely to play a very important part in its evolution. This primary consideration is important, because, if it may be suggested with a fair show of reason that nutrition lies at the root of sexual differentiation, we may claim to have at least paved the way for the further and scientific consideration of the whole subject.

Well-nigh every recent theory of sex which has had a basis of scientific nature, as distinguished from theories which are merely the outcome of isolated and detached ideas regarding sexual differentiation, has started from the stand-point of nutrition as the one factor of import in sex production. As an illustration of a recent theory of sex, that elaborated and illustrated by Messrs. Geddes and Thomson in their "Evolution of Sex," may be mentioned. These authors hold that a *catabolic* habit of body (or conditions in which there is a tendency to the predominance of waste over repair) favors the production of males. The opposite habit, that of *anabolism*, which favors constructive processes, on the other hand, tends to the production of females. Here it is evident, nutrition is regarded as the starting-point of everything. It is the general factor which acts upon the special phases of sexual development. Experimental evidence is called to aid the induction thus made. High-fed tadpoles turned out males in gross excess, while "left to themselves the percentage of females was rather in the majority." How far the case of tadpoles can be regarded as applying to the mammalia is, of course, a serious consideration with the critic of these facts. We must not forget that while the adult female is almost always the stronger and the best developed in lower life, the case is reversed among mammals. This alone is a biological fact worth bearing in mind; for if the male be the stronger in the human species, as he undoubtedly is, it seems illogical to conclude that the laws of sex-differentiation in lower life, with its bigger females, should apply to higher existence.

What help we obtain from embryology is naturally of great importance in the matter before us. Every one knows that the male and female generative organs are developed each out of a common or indifferent type, just as their adult homologies are plainly enough indicated. About the sixth week of intrauterine life the genital glands begin to appear. The male organs are formed by specialized developments of the common type, just as the female organs appear in their turn through equally specialized developments of the same type. If the development of an animal shows us the history of its race evolution—that is, if embryology be a guide to ontogeny—then it seems clearly enough demonstrated that the sexes of higher animals have arisen out of a once common or hermaphroditic type. To put the matter plainly, it would seem as though each fœtus at its outset hangs or rests in equilibrium as regards it sex. Something occurs in its history which gives it a bias to the male or to the female side, and it is precisely the nature of that something which it is the business of exact science to determine, and of theory to provisionally indicate.

Like my predecessors in the domain of theoretical explanation, my faith is large in the influence of nutrition as the factor which determines sex. That subsidiary causes, heredity, temperament, and other influences may also operate to this end, I am far from denying; but to nutrition, even from the period of the ovum and its fertilization, I attribute the main cause of sex-differentiation. I take for granted that menstruation is really ovulation, and that the latter process consists in the development and extrusion of ova which are fertilized, in man, usually in the Fallopian tube. Now, prior to fertilization, there can, of course, be no question of sex. Fertilization alone determines the beginning of embryonic development, and shortly stated, my theory of sex therefore holds, that when an ovum is fertilized *before* the occurrence of the menstrual period it will develop a male embryo, while, conversely, if the ovum is impregnated *after* the menstrual period, it will result in a female conception.

These statements require further explanation. By pre-menstrual fertilization I mean the impregnation of an ovum which would have been given off and would have perished in an impending menstruation. Suppose a woman due to begin menstruation on the first of the month, and that coition and impregnation take place, say, during the last days of the preceding month, the impending period will of course be "missed." This I term pre-menstrual impregnation, and this I hold will result in a male birth. Contrariwise, let us suppose the woman menstruates from the first to the fourth of the month, and that intercourse occurs, say, on the fifth or sixth and is followed by impregnation—this I call a post-menstrual impregnation, such as I hold will produce a female birth.

I can anticipate many objections to my theory, of course, but I ask for its free criticism and for a practical investigation of its merits. I take it for granted that the old idea of a special proclivity to conception just before and just after menstruation is founded securely enough on common clinical experience, domestic and professional alike. At least I hold to the received notion (*pace* my friend Mr. Lawson Tait) that ovulation and menstruation, if not always concurrent or interdependent, still exhibit a close enough relationship to warrant my founding a theory upon their mere existence. Now, if there does exist this pre-and post-menstrual liability to conception (with the usual calculation of pregnancy from the date of the last menstrual period), is it conceivable that the time and circumstances of conception should be without a due influence on the product of conception? That which specially results in my opinion, is an effect upon the nutrition of the ovum. An ovum, we know, will live for a certain undetermined length of time in the Fallopian tube and uterine cavity. When first extruded from the ovary, it is reasonable to conclude the ovum is in the perfection of its development. It is ready and ripe for fertilization, and all its powers and tendencies are in the full flush of their vigor. I am purposely supposing that the extrusion of ova takes place prior to the appearance of the menstrual flow itself—a perfectly warrantable belief in its way—just as the life of the ovum persists after the flow has ceased, and fertilization at this early stage therefore finds a robust ovum ready whereon to operate. It is the reverse with the ovum at the post-menstrual period. The ovum has lain in the tube or uterus, and has lost vitality. Immeasurably small and insignificant may be the loss; still it seems reasonable to believe that the further off an ovum is from its entrusion, the less vital and vigorous must it be. Thus, I opine, if impregnation acts on an early and robust germ cell, it receives a nutritive bias which sends it (as the stronger ovum) to the male side; while if impregnation be delayed, we obtain a weaker ovum, or less vigorous germ, whose lessened nutrition swings it over to the weaker female side. Hermaphroditism, according to this theory, would result from fertilization of an ovum in stable equilibrium. If impregnation occurred at what we may call the "middle term" of its existence, when the ovum obtained no definite bias in either male or female direction, we may presume that an indefinite or mixed type of sexuality would result.

If any modification of my theory is admissible, I may here suggest that it is not necessary that we should bind ourselves absolutely to the terms "pre-menstrual" and "post menstrual" as indicating any rigidly defined periods of fertilization. I believe that such terms are actually represented in the phenomena of impregnation, and that, taking the occurrence of menstruation to represent a physiological epoch, as it were, we are justified in distinguishing between impregnation occurring before the establishment of the monthly crisis and that occurring after its cessation. Alternately it may be held that neglecting the menstrual period, the tendency of any ovum to develop a male depends on its early fertilization after its escape from the ovisac. The longer impregnation is delayed after the extrusion of the ovum, the greater is the tendency, on this view to the development of the less robust female side. According to this way of thinking, it is anabolism in mammalian ova which produces males, and catabolism which gives origin to females.

Such, briefly stated, are the results of my cogitations on the subject of sex. Manifestly crude as my theory may be, I venture to think it is worth the attention of obstetricians especially. It has been possible now and then for me to obtain information from married friends who have been sufficiently interested in the topic to note the results of their family increase, and one or two of a scientific turn of mind have been able, as they say, to verify my conclusions. Obviously, proof is difficult of collection, but obstetricians at least may be asked to note and observe facts as they stand, and may possibly take the trouble to place on record evidence for or against my belief. It is as a proviisional hypothesis alone that I advance these views. The only justification they require is that they should not travel outside biological probability, and I would fain hope that, in this respect at least, they conform to the rules of reasonable speculation.—Andrew Wilson, F. R. C. S., in *Lancet*.

"THE SUPPOSED CURATIVE EFFECT OF OPERATIONS *PER SE*."

Of something more than passing interest is a paper by Professor J. William White, of Philadelphia, whitch has recently appeared in the Aug. and Sept. numbers of the *Annals of Surgery*. The subject of the paper is, perhaps, best conveyed in the author's own opening remarks. He says:—"For some time I have had the idea of collecting and analyzing the various cases recorded in the journals and elsewhere, in which intelligent surgeons, having operated for the relief of symptoms depending upon a supposed pathological basis, have found no such condition, and yet the patient recovered, not only from the operation, but from the original ailment." The author then passes on to consider—first, the recorded cases, and, secondly, the possible explanation of the phenomena observed.

There can be but few surgeons who have not, in the course of their experience, had cases which recall results similar to many that are referred to here. To operate and find nothing, and yet the patient to be relieved of his symptoms, is sometimes strange enough; but, more mysterious still, are those cases where something is found, and where the surgeon honestly feels that nothing that he did seems sufficient to explain the cure that has been effected. After reading such a paper as that here referred to, the temptation almost lingers in the surgeon's mind that no protracted case, either obscure in its symptoms, or even obvious in its signs, should be allowed to pass without some tentative surgical measure. There is something as mysterious almost in contemplating many of these results as there is in considering the cases which are now said to result from the therapeutical use of hypnotism. It is, of course, quite possible that many results obtained in both cases are effected through similar internal agencies, and with this Professor White deals more extensively later. But the difficulty of explanation can hardly be said to be easier in the one case than in the other. For while certainly the distance between cause and effect seems often far enough in hypnotism, it cannot be said to be any closer in cases where one epileptic is cured by castration and another by tracheotomy.

The major part of the first portion of Professor White's paper (August number) is mainly taken up with a consideration of these epileptic cases. From various sources the author has collected 154 cases where operations were performed, and in which little or nothing was found to account for the symptoms, but either marked benefit or cure followed. The operations performed were various. The larger proportion, however, were cases of trephining; thus, in 56 cases where this operation was performed, and nothing abnormal was found to account for the symptoms, 25 were reported as cured, 18 as improved, and only 3 showed signs of relapse later. It should be noted that in nearly all these cases the cause of the fits had been some injury to the head, although, from the tables given, it also appears that some were idiopathic in character.

The operation of ligating large arteries, as the vertebrals and the carotids, was performed in 30 cases, and, judging again from the tables, these apparently were mostly of an idiopathic character. Fourteen of these cases were reported as cured, and 15 as improved. Castration was performed in 10 cases and tracheotomy in 9, and cures were effected in each instance. Many other operations are given, both severe and simple, and with results as difficult to explain as those above indicated.

Following upon these epileptic cases is a series comprising cases of abdominal and pelvic disorders. Of these, it may be said that diseases of the most diverse character have been relieved, if not cured, by apparently ineffectual operative measures. Thus, we find simple laparotomy (*i.e.*, nothing more than opening the abdomen) performed with success for tubercular peritonitis, pain in the stomach with persistent vomiting, distressing renal symptoms, intestinal obstruction, severe localized pelvic pain, supposed pyosalpinx, large fibroid tumor of uterus, pelvic adhesions, obscure hepatic symptoms with jaundice, and many other conditions. As a sub-division of this class are operations upon the genito-urinary tract. Of these, the most striking are operations for supposed kidney calculus, where nothing has been found to account for the symptoms, and yet the result of the operation has been their entire disappearance.

In attempting to offer some reasonable explanation of the phenomena observed in the above cases, Professor White considers those conditions which were common to all, or nearly all, of them. These were:

1. Anæsthesia.
2. Psychical influence, or so-called mental impressions.
3. Relief of tension.
4. Reflex action, or the "reaction of traumatism."

The first is briefly dismissed from the fact that it was tried experimentally on numerous cases with negative results.

In considering the second influence—that of psychical influence or mental impression—the author pertinently asks—"Is it possible, through influences acting upon the emotional or intellectual nature, to effect the organic processes of secretion, nutrition, etc., and, if so, is it conceivable that through the same influences pathological changes may be arrested and reparative or curative action established?" The reply he gives is in the affirmative. But its application as a complete and satisfactory explanation, in the present instance, is to some extent insufficient from the fact that it is impossible to make it—*i.e.*, psychical influence, account for the curative effect of operations *per se* on imbeciles; that healthy-brained people should be influenced by operations is only reasonable to assume, as there is abundant evidence to show that they are effected by numerous other influences. In these purely psychical effects, then, there can be but little difference between the internal agencies brought into play to produce a cure, on the one hand, by a surgical operation, or, on the other, by the subjective influence of hypnotism; and any explanation which can be found to throw light on the one must similarly elucidate the mode of action of the other.

The third condition—relief of tension—can only be said to exist in certain of the recorded cases. Where tension has by operation been unquestionably relieved, it is quite reasonable to assume—as the author does—that such relief must be accompanied by other changes in the surrounding parts, and that these changes may result in a return of the parts to a normal condition. The only question which may fairly be asked here is—whether it is right to include such cases in the category of those especially under consideration? To relieve tension is a most common and important surgical procedure; and, where such relief entails a cure, the operation, however simple, must be considered in the light of any other well directed surgical measure. This theory, then, while it reasonably explains many apparently mysterious results, cannot be said to throw any light on the epileptic cures by trephining. Gowers appears to think that the good result obtained in these cases is due to the escape of pent-serum; but the escape of serum is but a rare concomitant, and if a cure result where no such obvious cause of reduction of tension exists, it can hardly be accepted as a likely explanation. A more reasonable, although it must be confessed a by no means clear, explanation is possibly to be found in the fourth condition which the author describes—that of reflex action. Under this head is included the "reaction of traumatism," as well as the effects of revulsion and counter-irritation. This theory is based on the reciprocal influence which is frequently seen of one portion of the body on another in both health and disease. Thus the inexplicable relationship between mumps and orchitis—between a burn and a duodenal ulcer. The one condition is not unfrequently associated with the other, but what constitutes the connecting link is an unsolved problem. So it seems reasonable to suppose that the influence of an operation on one part may so influence the pathological condition of another as to bring about a curative result. To produce an injury to cure an injury forcibly suggests to one's mind the homœopathic dictum, *Similia similibus curantur.* In further support of such an explanation, that certain unknown influences can bring about curative changes, the author adduces cases reported by Drs. Gairdner and Coats and Sir James Paget at the London Pathological Society, in April, 1879. These were cases of the disappearance of tumors, in some instances of an undoubted cancerous nature.

While thus endeavoring to offer some explanation for the otherwise inexplicable good results of an operation *per se*, Professor White concludes with a caution regarding the possible danger of considering as mysterious what really can be accounted for by the operation itself. Thus, in many abdominal operations, what is called a simple laparotomy may unknowingly comprise in its performance manipulations which may break down some slight adhesion or empty a pyo-salpinx into the uterus, etc. But, with all precautions to exclude such class of cases, there still remains a very large residuum which must be relegated for the present to the realm of mystery.

Professor White has had an arduous task in collecting the material which he has made such good use of; but the interest, not to speak of the intrinsic value, which attaches to the subject must have rendered it no unpleasant duty, and the result will be highly appreciated by all who read his valuable paper.—Ernest Maylard, B.S., in *Glasgow Med. Jour.*

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SORE THROAT.—For a sore or raw throat without much inflammation an excellent, soothing, emollient application is vaseline. A mass size of a hazlenut should be taken into the mouth, and as it melts, which it does almost instantly, it should be allowed to trickle slowly back and down the throat.—*Exchange.*

TOBACCO AND INSANITY.

There is no narcotic, either in modern or ancient times, which has been, and still is, so universally in use, as tobacco, and there is none about whose action on the human body there is so much difference of opinion among the laity and the profession.

Whereas by some it is looked upon as an unmitigated evil, it is claimed by others that its use is not without advantage. Hence, it has been praised, ridiculed and condemned in turns. Its friends have, so far, carried the day; the triumphal march over nearly the whole civilized and uncivilized globe has been continuous.

Without entering into preliminaries and details, I will state at the outset that I side with those who, looking at the injurious effects collectively, consider it more harmful than alcohol, from the simple fact that its use is more general, its effects more gradual and less obvious, and that, from a moral point of view, it is in better standing.

The breath of tobacco is held permissible, and will be condoned by all classes; that of alcohol is looked upon as odious, and exposes its bearer in some quarters to social ostracism.

It is this connivance on the part of public opinion, at this kind of luxus-consumption, as it is euphoniously styled by modern physiologists, that fosters its spread, especially among those who can least afford to offer any insult to their nervous systems. And unfortunately it is just this class of persons who delude themselves into the belief that tobacco is indispensable to them. With advancing civilization it is considered necessary by many to use a sedative or a stimulant of some sort as a kind of safety-valve for the growing nervousness of our age.

Thus, by many smokers it is thought that after bodily or mental exertion an equilibrium of the mental and bodily energies is re-established by the pipe, cigar, or plug. Its action, therefore, is somewhat like that of coca in its pleasant effects.

This is the case in the healthy smoker as long as he keeps within certain limits. But it is quite different with the vast and ever-increasing army of neurasthenics and psychopaths of our days.

Our ancestors were evidently not so deleteriously affected either by alcohol or tobacco, as modern man is, with the strain of the requirements of a more complicated life weighing upon him, and handicapped, as he frequently it, in his nervous and physical make up.

It is especially of the effect of tobacco on this latter class that I wish to speak in the following remarks, and I want to state, right here, as a broad assertion that, whereas the robust and healthy, especially if he lead an active outdoor life, may use tobacco in its various forms with apparent impunity, *i.e.*, without experiencing any demonstrable damage to body or mind, the neurasthenic and the psychopath have no business either to smoke or chew.

But it is just this category who, by the way, are often not all aware of their morbid condition, that become such absolute and powerless slaves to the habit. They fall, as a rule, victims to it early in life. While the healthy human organism revolts against the drug as intensely as that of a dog or cat, and has to gradually accustom itself to and overcome the unpleasant sensations accompanying the first attempts at using it, the born neurasthenic often takes to it as the young duck does to water. Only in this manner can the peculiar phenomenon of infant smokers be explained, if one does not prefer to look upon a perverted appetite as a species of moral insanity from parents who are not only excessive tobacco users, but evidently mentally defective.

Now, I do not believe that, with approaching maturer years, I am one of those who eye through pessimistic spectacles the rising generation, but I simply repeat the every-day observation, which I have never seen doubted or contradicted, that there is an alarming increase of juvenile smokers; and, basing my assertion on the experience gathered in my private practice and at the St. Vincent's Institution, I will broadly state that the boy who smokes at seven will drink whiskey at fourteen, take to morphine at 20 or 25, and wind up with cocaine and the rest of the narcotics at 30 and later on.

It is like a pathologico-moral version of Hogarth's "The Rake's Progress.

It may look like overstating and exaggerating things, when I say that tobacco when habitually used by the young leads to a species of imbecility, that the juvenile smoker will lie, cheat and steal, which he would not had he left tobacco alone. This kind of insanity I have observed in quite a number of cases at the St. Vincent's. The patients presented all the characters of young incorrigibles. They had exhausted the patience and indulgence of their parents, who saw no other way to protect them from their insane pranks than to commit them to the institution.

I do not know whether a lasting improvement was effected in any of them. There was not one of them that was able to comprehend that tobacco was injuring him; they were constantly on the lookout for obtaining it, by begging, stealing or bribing, and looked upon the deprivation of the drug as a punishment. The sense of propriety, the faculty of distinguishing right from wrong, was lost. The father of one of them, who regarded his son only as an aggravated case of bad boy, told me that he himself had been smoking ever since his tenth year and it never had affected him.

In reality, being only 45 years old, he was a wreck, physically and mentally, though he came of healthy stock. He could or would not comprehend that tobacco was gradually undermining his mind and body, although his wife and his friends knew it.

But it is not only in the young that tobacco exerts such disastrous effects. Smoking or chewing, when commenced in the period of manhood, and even at a time when it generally does least harm, after middle age, will tell on the mind, if excessively indulged in. Is it to be wondered at that a drug which, until tolerance is established, has such potent and palpable effects as to produce loss of co-ordination and unspeakable malaise, and after the organism has become used to it, is capable of setting up the well-known heart disturbances, amblyopia, and even amaurosis, which, in short, possesses the characteristic qualities of a powerful nerve poison? Is it a wonder, if such drug when, in spite of the warnings on the part of various organs, excessively and persistently indulged in, finally produces one or the other form of insanity? A drug that can, as has been demonstrated, set up organic changes of the optic nerve which, I hardly need mention, is in reality not a nerve, but a protrusion or elongation of the brain itself, must certainly be capable of injuriously influencing other, and functionally higher, parts of the organ of the mind.

Dr. Kjelberg read before the section of Neurology and Psychiatry of the last International Congress a paper in which he described a nicotine-psychosis, well marked by definite symptoms and stages. I have never seen the clinical picture as drawn by this observer, but it always seemed to me that whenever tobacco entered at all as a factor in a case of insanity, it was the immediate cause, vivifying, uniting, and condensing, as it were, the dormant morbid elements which predisposed the individual to mental disturbance. Thus, I have seen melancholia, more often mania, and very frequently general paresis hastened and precipitated by excessive use of tobacco.

That the majority of the insane smoke or chew is too well known to deserve special mention. Some alienists have been of the opinion that this habit ought not to be discouraged, that it has a calming and pacifying effect especially on the chronic insane. I believe this to be the case in some of the secondary dements, but ordinarily though calming, it has an exciting effect later on. True, if the temporary contentment resulting from the gratification of the craving of the patient is looked upon as the action of tobacco, I agree that its effects are calming. But this quieting down, in my opinion, takes place on the same principle that a child gets quiet and stops crying when its wish, even the most unreasonable one, is gratified. The rule is, that smoking causes or prolongs excitement in the insane. Many become absolutely unmanageable as soon as they touch tobacco. They get quarrelsome, tease and molest their fellow patients and render themselves obnoxious generally.

That tobacco really does cause insanity is evidenced by the magic effect seen in some cases after the discontinuance of the drug, when the patient's condition is still such that he is not wholly inaccessible to reason and has will power enough to abandon the habit. Thus I have seen that beginning melancholia with suicidal impulses, hallucinations of various kinds, forced actions, besides the precursory symptoms of insanity, such as insomnia, crying spells, præcordial anxiety, impotency, vertigo, beginning impairment of memory and judging power, and even the lowering of the moral tone, all of which, and a host of other symptoms, were attributable to tobacco intoxication, disappeared sooner or later after freedom from the habit was established.

But whenever a case has gotten so far, that commitment to an institution has become necessary, the prospects are not so good, because such persons as a rule cannot be convinced that tobacco is or has been the cause of their mental trouble. Their argument is that almost everybody smokes, that all their friends and acquaintances chew or smoke, without showing symptoms of insanity. The alcoholic insane, when leaving the institution to enter active life again, generally knows and admits that alcohol has been the cause of his mental breakdown; the nicotine victim does not admit anything.

There has been a movement on foot in the medical press and to some extent in the daily papers, which latter chronicle the few cases that come to public knowledge under the head: "Gone insane from cigarette smoking," etc., to counteract the spread of this fatal habit, fatal to the individual himself and pernicious to the coming generation; but so far, apparently without any appreciable result.

French medical observers are of the opinion that one of the factors causing the depopulation of France is the excessive use of tobacco by its inhabitants; for the offspring of inveterate tobacco consumers is notoriously puny and stunted in stature and lacks the normal resisting power, especially on the part of the nervous system; again, in our country it is a significant fact that an alarming percentage of the candidates for admission to West Point and other military schools are rejected on account of tobacco hearts; from all countries and from all classes of society come reports in increasing numbers of the baneful effects of the tobacco habit.

But the consumption goes on and will do so until an example is set by those who, above all others, can estimate the disastrous effects of the habit.

If teachers, preachers and doctors would pronounce the anathema on tobacco by abstaining from it themselves, others would follow. But here is the difficulty. It is only exceptionally that a smoking pedagogue, clergyman or physician, can be convinced that he would be a better man, physically, intellectually and morally, if he would give up tobacco, and that he had no idea what capabilities of well-being he possesses, if he only could muster up moral courage enough to abandon the use of a drug which, in nine cases out of ten, produces, to say the least, a vague sensation of uneasiness and restlessness, which only too often calls for a remedy that will do away with these effects, and that is alcohol. Some are aware that tobacco alone is responsible for a continuous malaise or misery, especially when they are reminded of it by others; but like the cocainist who asserts that the effects of cocoaine are horrible, and still goes on using the poison, so the tobacco slave is bound as by fate, to again and again indulge in a drug which he knows causes him to suffer.

Some, however, labor under the delusion that it increases their working power, that the flow of thought becomes easier, and that without tobacco they are unable to do any mental work. Instances are cited by them of great men, inveterate and excessive tobacco consumers, who left their mark in the history of civilization as savants, artists, etc. They do not consider the possibility that these men accomplished what they did in spite, but not in consequence of, or aided by, their habit.

Students of the chronic nicotine intoxication are convinced that the great men among the tobacco slaves would have been still greater had they never used the drug. Thus Kant, the most eminent of German philosophers, is said to have written such an obscure and unintelligible style, because he smoked and snuffed to excess. I myself know of a medical man who wrote a great book which labors under the same defect as Kant's works, because of his slavery to tobacco.

But these things are trifles when compared with the degenerative influence the drug exerts on the broad masses. There is only one way to lessen the evil: it is a general crusade against the weed, initiated and sustained by the three professions mentioned above. But is there much prospect of such a movement at present? I believe not. I know of schools conducted by the clergy in which smoking is not only permitted to fourteen years old and even younger boys, but more or less encouraged. I believe that its well-known anaphrodisiæ effect on account of which it was very popular among the monks of Italy several centuries ago, has something to do with this connivance on the part of the clerical gentlemen.

Again, I know of physicians who not only smoke to excess themselves, or still worse, indulge to a morbid extent in the unmannerly habit of chewing, but permit and encourage their own children to smoke. One of them was in the habit of awarding his thirteen year old son by extra good, *i.e.* extra strong, cigars, for high numbers in school. It is hardly necessary to add what became of this boy. He is now a periodical inmate at various sanitariums for a combination of bad habits.

In view of such discouraging facts I hardly expect much good from this contribution and testimonial to the evil effects of tobacco, because the truth has not dawned upon the multitude yet. As in the body politic evils will run their course, until there is a general uprising of common sense which disposes of them, so with the irrational and excessive use of tobacco, which will probably go on increasing until a limit of endurance is reached, until the disastrous results of the abuse are patent enough to impress even the dullest mind. Only too often does the physician hear the words: "I will give up anything but tobacco." This shows the intensity of fascination exerted by it over its slaves. Therefore, like many a one before me, I shall, in presenting this paper, probably only reenact the part of the preacher in the desert.

Perhaps, however, my remarks may strike a sympathetic chord here and there and serve the purpose they were written for—to avert bodily misery and mental degredation.—L. Bremer, M.D., in *Med. Mirror*.

TREATMENT OF CHRONIC NEPHRITIS.

We have first to consider the progressive tendency to destruction of the kidney, either by primary degeneration of the epithelium or by its destruction under the contracting interstitial substance. In the first place, there should be avoidance of all the causes which would provoke the diseases—exposure to cold and wet being among the most important dangers; flannel should be worn; overwork, bodily and mental, given up. A climate free from both coldness and dampness sought if possible. As it seems highly probable, from many researches on the subject, that some of the symptoms are due, not to the simpler and more familiar products of nitrogenous decomposition, such as urea, but to the more complicated ones with which we are becoming acquainted, as ptomaines and toxic albumens, it is desirable that the nitrogenous foods should be presented in a form least likely to undergo abnormal changes. Hence, a heavy meat diet is not desirable. The amount of actual loss of albumen is, in most cases, not great, and it is not necessary to push animal food with a view to making up the deficiency. The vegetable proteids are capable of fully maintaining the nitrogenous equilibrium. More than this, it is not only necessary, but throws increased and entirely avoidable labor on the kidneys, either as albumen or as excess of urea and uric acid.

The amount of meat should be regulated with reference to anæmia, and also the digestion of the particular patient in question, but should never be excessive.

Milk is an excellent food and, in some cases, an exclusive, or almost exclusive milk diet can be employed, for a time with great advantage. Of course it cannot be prolonged indefinitely without additions and modification.

Tonics, especially iron, may be used. The preference is sometimes given to some of the ether-containing preparations, like the tincture of the chloride; but if any other form is more easily borne, the ether (say spirits of nitrous ether) can be added if necessary.

Water is of great importance. The value of a great number of spring waters, which have a reputation in such cases, depends mostly on the ingredients of which least is said—*i. e.*, on the water itself, and not on the trivial amount of sulphate of soda, carbonate of lime, or infinitesimal trace of lithia dissolved in it. If there is a tendency to excess of uric acid, an alkaline water should be selected.

In *interstitial nephritis*—the cirrhotic kidney—we have to consider not merely the state of the kidney, but the condition of the circulation which so frequently accompanies and precedes it.

A great deal of use has been made of the nitrites, especially nitro-glycerine, with a view to diminishing the arterial tension. It is very doubtful whether the slight and temporary diminution produced by the doses usually given could be expected to be of great value. Certainly the results have not seemed to give decisive proof of it.

The alternative metals—mercury, silver, and gold—have been used.

Bright was certainly right in warning against mercury. The constitutional action of this drug is exceedingly inimical to the renal epithelium. This need not prevent the administration of calomel as a cathartic if considered specially desirable.

Gold appears to the writer to be as futile in controlling the formation and contraction of new interstitial tissue in the kidney as its sister, silver, has been found in similar conditions of the nervous centers.

Among the complications.—Œdema being of long duration and often extreme, is likely to call for decided treatment. This may be of the eliminative kind, remembering, however, that in this case it is water, and not especially the urinary solids, we wish to carry off. Hence, drugs, requiring the ingestion of much water should be discarded for those that may be given in small bulk, like the resinous cathartics.

Rest in bed often diminishes the œdema, but is much more likely simply to change its location. Mechanical relief, by tapping the great cavities, as in hydrothorax and as ascites, or the subcutaneous cellular tissue, is often called for. Punctures and incisions, if made with clean instruments, are not to be dreaded as causing local inflammation. They often drain for hours or days with advantage.

Œdema of the lungs demands similar but prompt treatment, together with stimulation of the heart. The writer considers that, under these circumstances, the diffusible stimulants, alcohol, ether, and ammonia, are of more value than digitalis. Some physicians consider musk and castoreum as valuable stimulants to the flabby and dilated heart. Bleeding may be useful, especially in terminal uræmia.

A word may be added as to the *use of morphine in the headaches* of interstitial nephritis. It is said by some persons that morphine should be given with great caution if there is any albumen in the urine; and the writer cordially subscribes to this sentiment, and is willing to add that it should never be given to anybody under any circumstances (except perfect familiarity with the patient and his idiosyncrasies,) without great caution. This caution, however, should not be so great as to deprive such patients of the great relief which may be obtained by quite a small dose subcutaneously for the relief of intense headache. There are few circumstances under which it displays its powers more favorably than in these. Its use in convulsions was before spoken of.

Caffeine is often extremely useful.—Edes, *West. Med. Reporter.*

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ÆTIOLOGY OF CANCER.—Schuchardt, reviewing Hauser's monograph on *Cylinder-celled Carcinoma of the Stomach, etc.*, considers the various theories which have been adduced.

He agrees with Hauser in setting aside the infection theory and hypothesis of a still undiscovered cancer bacillus. In all "infective tumors" produced by micro-organisms, and all other new tissue formations brought about by parasites, we have to do merely with a growth of the local tissue, and the metastases of such infective tumors are never found proceeding from a growth of cells which have escaped from the primary mass. On the contrary, the metastatic formations arise solely by the action of escaped micro-organisms upon the tissue in which they come to rest, just as in the case of the primary mass. The successful transferrings of carcinoma from one animal to another (Hanau) are to be regarded merely as transplantations with further growth of the transplanted tissue, and show nothing more than that the cancerous epithelial cells may, under favorable circumstances, continue to grow after transplantation to another organism. Of a true communication in the sense of the infectious theory, it were only possible to speak when by inoculation of a micro-organism, or the implantation of a living tissue containing it, the tissues of the new host were themselves incited to cancerous growth.

Cohnheim's inclusion theory considered by Hauser now as untenable has for Schuchardt this recommendation, in the first place, that it was the first truly universal theory of tumor formation, although it consists neither with the irritation theory nor with Thiersch's hypothesis of a disturbance of the histogenetic balance between the epithelial and connective tissues—namely, by senile alteration on the part of the connective tissues with persistent formative activity on the part of the epithelium. Cancer is, however, by no means a disease peculiar to old age—developing, as a matter of fact, most frequently in the 10 years between 40 and 50. Such a disturbance of balance, if it be present, must alter the whole surface of contact (be present, that is, all along the line), and can at best only serve as a predisposing cause to favor the development of a cancerous tumor. The local causes it has long been customary to find in chronic inflammatory processes which sometimes precede cancer for years, and then suddenly or gradually develop into it.

For Schuchardt, however important these things may be as conditioning causes, it is not to be forgotten (1) that they are only demonstrable as such in relation to certain well recognized and defined types of the carcinomata; (2) that by far the greater part of the carcinomata, and especially most of those occurring in the stomach and intestine, arise without precedent chronic irritation. Most internal cancers come like a thief in the night, without warning.

The irritation theory, then, is not one of universal applicability; but even in the cases where chronic inflammatory processes have been in existence, the chronic irritation can only be regarded as a local predisposition to cancer formation. The actual cause, the unknown x (Volkmann), which must accompany the atypical epithelial proliferation is not brought one step nearer to our knowledge by the irritation theory.—*Centrallblatt. f. Chir.*—*Glasgow Med. Jour.*

Early Curetting in Puerperal Infection.—M. Charrier discusses (*Archives Générales Médicine*) early curetting as a prophylactic and therapeutical measure in puerperal infection. It is only of recent years that the uterus after delivery has been looked upon as a wounded surface, and the difficulty of keeping this wound healthy and aseptic is shown by the not inconsiderable number of women in whom delivery, and more especially abortion, has been the starting-point of a number of more or less serious accidents. The fever may be of short duration, and the infection an attenuated one, but as soon as the patient returns to her ordinary life the trouble begins. Most often the operation of early curetting is one of urgency, and there is little time for preparing the patient. M. Pozzi looks upon repeated shivering, a temperature of over 30° C. in the axilla, the general state of the patient, the pulse, etc., as affording pressing indications. The curetting is done in much the usual way with strict antiseptic precautions and with great gentleness, a blunt and non-cutting instrument being used. The uterus is washed out, and the cavity tamponed with iodoform gauze. Anæsthesia is not necessary. The amount of fœtid *debris* brought away may be extraordinary. The author says that this treatment is indicated in cases of slighter infection, when abdominal tenderness, less marked fever, and fœtid lochial discharge are present. Antiseptic injections may render the *debris* powerless from a bacteriological point of view, but such patients do not thoroughly recover. The objections raised against this treatment are, that intra-uterine washing out is most often sufficient; and, secondly, the supposed gravity of curetting the uterus after delivery. But if anything remains behind in the uterus these injections cannot be counted upon; and, again, if the operation is done with care, it is never followed by evil consequences. Puerperal accidents, rare nowadays, will no longer be feared if washing out the uterus and curetting be used. If this treatment of puerperal infection has not as yet passed into practice it is because it has been adopted too late in the case, or has not been carried out with the necessary precautions. If this be done, the maladies of the uterus and appendages appearing later will be diminished in numbers. M. Charrier gives details of five illustrative cases.—*Brit. Med. Jour.*

An Excellent Way to Make Steel Instruments as Bright as New.—Clean the instruments by scrubbing with wood ashes and soft water, to remove all rust and grease; then soak them in a weak solution of hydrochloric acid in water (about ten to fifteen drops to the fluid ounce), for a few hours, to remove the remaining rust and grease; then wash them all in pure soft water. The next step is to place them in a bath, consisting of a saturated solution of *tin chloride.* Let them remain ten to twenty-four hours, according to the coating desired. When removed from the bath, wash them clean in pure water, and dry well. When the job is well done, the steel will appear as if nickle-plated. The technique of the process is so simple that no one should fail to make a good job, the main points being to remove all rust and grease, and have the bath a *saturated* solution of chloride of tin, the immersion being continued long enough to insure a good coating of metallic tin.

I present this to the *Brief* readers as a good thing. I published it in another journal, but it was botched up so badly by the printer as to be intelligible.—Joseph Adolphus, M.D.—*Med. Brief*

Delirium in Pneumonia.—A recent observation by Castelain (*Archives Médicales Belges*) seems worthy of some attention. His observations relate to the delirium which commences just before the crisis and lasts for several days thereafter. While not ignoring general conditions, alcoholism, debility, the condition of the heart and circulation, of the brain and nervous system, of the kidneys and other organs, he has directed especial attention to the condition in the lungs. During the period of complete hepatization the lung is impermeable to air; the exudation is abundant, but coagulated and compact; the alveoli are filled with fibrine and young cells mixed with red corpuscles. Next comes the period of liquefaction, and absorption of the great mass of the liquefied products.

Castelain's observations at this period of the disease lead him to the following conclusions:

1. The appearance of the delirium coincides with the beginning of the period of liquefaction, and is its first indication.

2. The curve of the delirium is parallel with the curve of liquefaction and of the abundance of the exudation The delirium increases during and after defervescence of the fever, in proportion as the râles become more moist and more numerous, and as they extend over a greater area. The delirium diminishes and disappears, little by little, in proportion as the fine râles become less numerous, occupy a less extensive area, and give place to coarser râles and finally to dry râles.

3. The duration of the delirium is in relation with that of the liquefaction of the great mass of the exudate. If the latter is liquefied rapidly and disappears immediately from the alveoli, the delirium is of short duration, but is more violent than when resolution occurs slowly or in different regions in succession. Delirium may even be entirely absent when liquefaction is slow or the exudation slight.—*Jour. Am. Med. Assoc.*

How to Laugh at the Mosquito.—I notice that some one recommends the use of camphor against the mosquito nuisance. I have used camphor for this purpose for some time, though I have not found it necessary to burn it. I take a piece of camphor fully an inch square and half an inch thick; this I lay on the bureau—always exposed—in daytime, and on or near the pillow at night. This is the only remedy I ever tried that afforded thorough relief. Even a mosquito bar lets the mosquitos in and bars the air out. Have two windows and door of the room wide open, no bars, and draft through. Have not been annoyed by mosquitoes since using the camphor, except to a very light extent for a night or two in case of storm and unusual draft through the room. I think then an additional piece or two of camphor would have prevented that. The mosquito has been a great annoyance to me, but I feel that I can now laugh at him. If others find the remedy as effectual as I have it will be a boon.—*Exchange.*

Sulphate of Magnesium in Epithelioma.—The treatment of warts by the internal administration of small doses of sulphate of magnesium is said to have been attended with a considerable amount of success, even large growths disappearing under the remedy when persisted in for a sufficient length of time. It is now claimed, according to the *Medical Press and Circular*, that epitheliomatous warts may be dispersed by the same means, a paper on this subject having been read before the New Hampshire Medical Society, by Graves. Three drachms of the salt are added to a pint of water, and a teaspoonful of the mixture taken four times a day. The author gave an account of eight cases in which the treatment had been adopted with success; but he admitted that the possibility of erroneous diagnosis had to be considered. It was, however, a fact that growths of an elevated character with round or oval bases and ulcerated summits discharging an ichorous fluid were transformed by the treatment into perfectly healthy spots, which exhibited no signs of diseased structure, and his conclusion was that the result was obtained by the remedy employed. —*St. Louis Med. and Surg. Jour.*

A New Albumen Test.—In *Fresenius' Zeitchrift fur Angewandte Chenue*, Dr. A. Jolles gives the following test for albumen in urine, which he claims to be sensitive to within one one-hundredth of one per cent. of albumen. To 10 cm. of the suspected urine add an equal amount of strong hydrochloric acid. Do not agitate the mixture, but immediately add with a pipette two or three drops of liquor calcis chlorinatæ. If albumen is present, a white turbidity will at once show itself in the upper part of the tube.—*Med. add Sur. Rep.*

Carbolic Acid is removed from the hands by bathing them for a sufficient time in alcohol and then anointing them with lanolin (*Pharmac. Central*, in *Med. Record*, Nov. 7, 1891). After the use of corrosive sublimate solution the hands should be bathed in a solution of common salt, one to fifty, then washed with soap and water, and finally rubbed with lanolin.—*Coll. and Clin. Record.*

THE CANADA LANCET.

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☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address*, DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* DR. C. SHEARD, 320 Jarvis St., Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. McMILLAN, St. John, N.B.; GEO. STREET & Co., 80 Cornhill, London, Eng.; M. H. MAHLER, 23 Rue Richer, Paris.

TORONTO, JANUARY, 1892.

The LANCET has the Largest Circulation of any Medical Journal in Canada.

A LITTLE LEARNING, ETC.

The writing of popular articles on medical and surgical subjects seems to be on the increase of late, particularly in American circles. A late issue of *Harper's Monthly Magazine* contains a paper by Drs. B. Farquhar Curtis and Wm. T. Bull, on "the Treatment of Cancers and other tumors."

And the custom seems to exist among respectable and even leading practitioners, especially perhaps those who have sanitaria or private hospitals of their own, of having printed for private circulation among not only their professional brethren but their patients, papers which they have read perhaps at medical or surgical society meetings. The writer was presented recently by a lady acquaintance with two such papers, printed in pamphlet form, after having been read at the Nashville meeting of the Medical and Surgical Association, and given her by one of the leading New England gynæcologists, who has a well-known private hospital near Boston. She had been a patient in his institution, had been operated upon for fibriods, and though a maiden lady, and by no means old, displayed the utmost freedom in discussing her own case and others under circumstances and in company that could by no stretch of imagination be called professional. Just why she should have been allowed to be an onlooker at other operations in the hospital, or why she should have been given these purely professional disquisitions by her surgeon, and been taught her almost literally *intro*-spective mental habits, are difficult questions to answer. The truth is probably that the *Harper's Magazine* people were animated by the same spirit, more refined certainly, but identical in genesis if not in degree, with that which prompts the "penny dreadful" to print harrowing accounts of accidents, murders, and executions. The plea that it is a means of educating the public in subjects of which they are woefully and harmfully ignorant, is scarcely worth advancing. A little knowledge is, in medical matters, a pre-eminently dangerous thing, and even with the educated class that read such periodicals as *Harper's Magazine*, the inevitable result would seem to be the formation of false ideas on medical subjects, such as may work mischief to their entertainer in some future time of illness, by causing him to set up his own opinions against the more intelligent judgment of his medical adviser, or even to fall into the Charybdis of the man who, being his own doctor, has a particular kind of a fool for a patient. It is not mere desire that the public should be kept in ignorance that prompts these remarks, for ignorance provides dupes for quacks; but a natural aversion to seeing harm done to the laity and the profession depreciated in the minds of the public by having the *arcana* of medicine and surgery displayed to the gaze of those who must misunderstand them unless initiated by an arduous course of scientific study. The knowledge of preventive medicine, and of the mispler hygienic precautions, is well taught, the more widely the better, but any attempt to explain in a popular way the principles of diagnosis, or pathology, or treatment must be in the nature of things only quasi-scientific, and end in the formation of erroneous conceptions. As to the medical men who write such articles, if they were modest enough to withhold their names, one could refrain from ugly suspicions as to their deepest motive. Probably the code of ethics varies in different communities of physicians, all the more probably because it is in large part unwritten and to be observed rather in the spirit than in the letter, but we beg leave to deprecate as unworthy any willingness to parade one's self in a professional way in any non-professional journal.

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LA GRIPPE.

It looks as if our old friend La Grippe, influenza, or whatever name may be applied to it, is going to pay us another visit, if it be not already in our midst, the American and Continental papers being full of accounts of an epidemic resembling that which swept our country last year, though in a slightly milder form. Many have been the surmises as to its true identity. In many of its features it resembles what was formerly known as the Influenza, which name was given by the Italians to a disease which occasionally visited Europe from remote periods, travelling rapidly from east to west, and supposed to be due to some influence of the planets upon poor suffering humanity. Authorities differ widely as to its nature and etiology, one eminent English surgeon giving it the grotesque name of "Bastard Pulmonary Rheumatism," while the unscientific name La Grippe, is supposed to be derived either from the French verb "gripper," to seize, or the Polish "crypka" (hoarse), from the nature of its onset and symptoms. The majority of medical men regard it as bacterial in origin, but the fact that such eminent investigators as Klebs, Kowalski, Kollman, Tomaso Crudeele, and others, all describe an essentially different microbe as being found in connection with the disease, indicates clearly that the specific germ has not yet been discovered. One theory as to its etiology was that La Grippe was a new disease started by a miasma arising from the thousands of rotting bodies left after the great flood from the overflow of "China's sorrow," which took place two and a half years since—at all events, the disease seemed to come from Asiatic Russia in the first place; and caravans constantly carrying tea and other Chinese products overland might account for its propagation.

It would seem as if atmospheric conditions had little effect upon the disease, although moist damp weather seems to be more favorable for its rapid spread than when the opposite state of things exist.

La Grippe has been divided into three forms, according to its action upon the different systems, viz.: nervous, pulmonary, and catarrhal and gastric, and this division seems justified by the peculiar course of the disease in various individuals.

In the nervous form there is intense headache of a peculiar throbbing character, with a sensation of great tension in the head; the eyes burn and ache, while muscular pains fly from one part of the body to the other; flashes of heat alternating with chilly sensations add to the patient's discomfort; the pulse-rate and temperature rapidly rise, and great prostration ensues, often followed by delirium or tinnitus aureum. In a few days, or a week, these symptoms usually ameliorate, although meningitis and other cerebral complications occasionally ensue, adding greatly to the gravity of the disorder.

The convalescence is usually slow, and a condition of nervous exhaustion is frequently left, characterized by great muscular debility and a tendency to an almost irresistible drowsiness and mental hebetude, which yields very slowly to treatment. In those cases which terminate fatally and post-mortems have been made, congestion of the spinal arachnoid and certain degenerations in the cord were found, but no pathological appearances of a specific nature.

The gastric form is characterized by muscular pains simulating closely those of rheumatism, with rise of temperature and the onset of nausea and vomiting, the ejected matter being of a peculiar greenish color, almost pathognomonic of the disease, and scarcely to be forgotten if once seen. Constipation and tenderness in the region of the spleen and liver is frequently found, and is some cases the disease assumes a typhoid form, but without the characteristic temperature record of that disease. The convalescence is more rapid than in the nervous form, although chronic weakness of the digestive system results in a certain proportion of the cases.

The catarrhal form, which has the greatest mortality, owing to the frequent onset of pneumonia in the aged or debilitated, is characterized by chilliness, intense frontal headache, sore throat with swelling of the tonsils, acute rhinitis with cough, tightness of the chest, and other symptoms of a severe attack of bronchitis. If pneumonia does not set in the patient usually recovers in the course of a couple of weeks. One of the most troublesome features of this form of La Grippe is the fact that acute otitis media sets in very frequently, characterized by intense earache followed by perforation of the membrana tympani, and subsequent deafness of a greater or less degree.

The pneumonia which supervenes rarely proves fatal except in the case of the aged or those debilitated by concomitant disease and does not usually exhibit the typical symptoms of pneumonia, such as rusty sputa, etc. Abscess of the lungs and pleurisy sometimes follow, while a chronic laryngitis of a very intractable nature occasionally results.

The treatment of La Grippe, like that of most self-limited diseases, is rather unsatisfactory, no specific having been found for it. A long list of antipyretics have been highly extolled, and of these antipyrine and phenacetine give the best results. Antiakmnia has been highly spoken of, bu as it is merely a mixture of antifebrine, soda bicarb, and tartaric acid, the less said about it the better. The intense headache is greatly benefited by Brown-Sequard's anti-neuralgic pill, one twice daily. Careful nursing and careful attention to diet are the principal things to be attended to, and the various symptoms arising are to be treated as each practitioner think best.

THE TRANSMISSIBILITY OF DIABETES.

Great discoveries in science usually disturb somewhat the judgments of enthusiastic followers in the train of the pioneers. The *Berlin Klin. Woch.* some time ago contained a paper by a German *savant* named Schmitz, the title of which probably out of deference to already accepted opinion was modestly put in the interrogative: "Is diabetes transmissible?"

Arguing from the fact that more than fifteen years before the discovery of the *bacillus* Dr. Hermann Weber (London) had drawn attention to the transmission of tubucle in married couples. Dr. Schmitz makes bold to advance an idea, with certain statistics. Up to 1880, 600 diabetic patients passed through Schmitz's hands, and of these, eight cases were those of man and wife affected with the disease, there being no reason (either of inheritance or of fondness for sweets), why the disease should attack each in succession. This was suggestive, and when in 1890, there were 26 such cases out of 2,320 patients (diabetic) the obvious suggestion was that diabetes is transmissible.

The scientific attitude of mind proper to an the more so when almost all the twenty-six investigator of such a subject, seems hardly to prompt such a statement, nor the further one that "the number of cases, even one per cent. almost puts chance out of the question, and occurred under similar circumstances." One would think that such cases could be more easily explained, under the present theory of a trophoneurosis, by considering the *irritans* to have been some identical circumstance in each case, such as some article of food or drink, or some unhygienic condition, to the action of which both patients were long exposed, or mere chance would surely be a sufficient explanation. The brother enthusiast who champions Schmitz' theory in a recent issue of the *Medical Chronicle* actually adds the foot note that "as regards the female being far more liable to infection from proximity than the male, one may suggest that as in cattle a male of impure breed will contaminate the future offspring of the cow, so in diabetes, the constitution of the husband might so influence that of the wife that the diabetic tendency is produced." A statement whose parallelism we quite fail, and not out of mere wilfulness, to see.

DISINFECTION OF THE HANDS.

The Brooklyn *Medical Journal* in a recent issue contains a summary of a paper on the above subject, by Dr. Franz Boll, recounting certain experiments in which the cleanliness or otherwise of the surgeon's hands was demonstrated by the methods of the bacteriologists, gelatine cultures being made from the suspected members. The efficiency of simple soap and water was found to be absolutely *nil.* The best known practical means of thorough antisepsis was found to be first a vigorous brushing of the hands, for not less than three minutes, with potash soap and water, "after which they are immersed, for a half minute each, first in a three per cent. solution of carbolic acid, and then in a 1-2000 sublimate solution. Finally the subungual spans and folds are thoroughly rubbed and cleansed with ten per cent. iodoform gauze which has been dipped in a five per cent. solution of carbolic acid."

Correspondence.

FOREIGN BODY IN THE RECTUM.

To the Editor of the CANADA LANCET.

SIR,—The following case being somewhat out of the ordinary run, and also exemplifying a morbid psychosis, may be of interest to your readers.

Pæderasty is a well-recognized vice, and although exceedingly difficult to demonstrate, cases like this one occasionally crop up which make a diagnosis with considerable certainty.

I was called upon, one afternoon, by an elderly gentleman of some 80 summers, who appeared to be in a very uneasy frame of mind. I had long been acquainted with him, and his manner was so unlike his ordinary self that it must have been apparent to even a casual observer. However, after a long beating about the bush, and adjuring him to confide his troubles to me, he announced, in a very shame-faced way, that he had been "up to" a school-boy's trick, and had got into trouble. Then after another period of beating about, he said he had been suffering for a long time from constipation of the bowels, and in order to obtain relief therefrom he had been in the habit, every day or oftener, of introducing a little bit of stick *per anum*, in order to break up the fæces and allow the mass to be expelled. This was his daily custom, as "he didn't like salts or pills." Finally, one morning in the course of his manipulations, the little bit of stick eluded his grasp and disappeared, within. That was five days before. He had taken repeated doses of pills, salts and castor oil They had acted freely, but the little stick was very obstinate and refused to be dislodged from its hiding-place by such nauseous means. Besides which, it evidently took these attempts upon its comfort none too kindly, and had begun to make itself so very unpleasant in consequence, that the dear, good old gentleman thought it best to see if I could prevail upon his little Zaccheus to "come down." Placing the nice old gentleman in the lithotomy position, I explored his rectum, in vain, for the little stick. However, as he positively assured me it was still within, and was moreover causing him a great deal of pain, in the region which the bashful Turk designated as his "little tum," I persisted. Pressure on the abdomen demonstrated a hard body in the left iliac region. This was somewhat movable, and by pressing this firstly upwards and backwards, and afterwards downwards and backwards, I was able to get the finger in the rectum in contact with a hard and rounded body. This became impinged against the posterior wall of the rectum. Then by introducing a placenta forceps, I managed to grasp the end of the stick, and relieved the festive manipulator of his troublesome guest. It proved to be a section of an ordinary basswood broomstick, ten and one-quarter inches extreme length, and of the ordinary diameter. It had been neatly whittled at each end into a rounded extremity, and was, no doubt, a very gratifying little instrument for the purpose to which it was put. The stick was crusted with fæces and the ends had both blood and pus upon them. A free evacuation of the bowels took place shortly afterward and the patient recovered without any trouble.

In this case the folds radiating from the anus were deficient, and the fundament itself exceedingly loose and flabby. These points and the admitted use of the little stick, point, I think, to the old boy's desires having outlived his sexual powers.

This gentleman is a highly respected old party, and is looked upon by a circle of admiring female relations and friends as such a "dear, sweet old man—so good you know."

The one pleasant circumstance about this otherwise very malodorous case was, that the old gentleman in his excess of joy at being extricated from his perilous predicament, gave me a very handsome fee. At the same time he most earnestly and anxiously adjured me not to tell "on him," for he would not "for anything" his family or "the women" should know about it. After giving him a lecture on morality, which he took very meekly, I obtained his promise "never to do so any more." Upon which basis I, in turn, promised not to divulge his secret to his friends; and, needless to say, I never did.

Yours, etc.,

W. FRED. JACKSON.

Brockville, Ont., Dec. 16, 1891.

ALBUMINURIA.—The salts of strontium, particularly the lactate, are said by Drs. Dujardin-Beaumetz and Paul to diminish albuminuria about one-half.

Osteomalacia with Castration.—Dr Thorn of Magdeburg (*Centralb f. Gyn.*) reports two cases of osteomalacia, one treated with iron, arsenic, phos., etc., with no apparent result, and the other, of which we give a brief abstract, upon which castration was performed. Patient, age 32, six years married, when one year old had rachitis and walked first in the fourth year. Three children, the last eleven months before castration. After the birth of the first child appeared the first symptoms of osteomalacia, increased after the third, which ended in a difficult forceps delivery, after which it was impossible for her to walk and she began to grow shorter.

Condition on examination: Patient exhibited to a marked degree all the characteristics of osteomalacia, especially in the pelvis. The promontory was easily reached, the symphisis bill-shaped, the pelvic outlet narrowed, uterus retroflexed with posterior perimetritis. The pain in the bones was intense and the least pressure on the sternum gave great annoyance. No albumen and, all the organs in good condition, save a slight bronchial catarrh. After coming to the clinic, and through all the usual treatment, the patient grew constantly worse and castration was decided upon. The ligaments, tubes and ovaries were very vascular, uterus of normal size with no cystic degeneration, but especially note-worthy was the extreme macies of all the tissues, such as one finds only in a puerperal condition. The posterior wall of the uterus would not bear the slightest pressure and even the cut arteries had to be tamponed. The first silk ligature cut through the left tube.

The convalescence was rapid and in twenty days the patient was dismissed. The pain in the limbs ceased and by the third day the sternum could bear pressure and the patient learned quickly to walk. She continued to improve in every day; the perimetritis was relieved and two months after the operation, there occurred, without any accident, a normal flow of blood from the uterus.

Complications and Sequelæ of Scarlet Fever.—Dr. J. Lewis Smith, of New York, read a paper (*Dietetic Gaz.*) on "How to Prevent Complications and Sequelæ in Scarlet Fever," in which he called attention to the fact that in scarlantina various bacteria abound on the faucial surfaces, the predominating variety being streptococci. These may enter the circulation and cause some of the complications. The rheumatism and nephritis of scarlet fever have by some authors been ascribed to bacterial infection. In view of these facts the application of antiseptic solutions to the naso-pharynx is serviceable in preventing entrance of germs into the body. To disinfect the fauces he employs a lotion composed of two drachms each of boric acid and borate of soda and one drachm of chloride of soda to the pint of water. The mixture after warming is injected in amounts of one drachm into each nostril every hour. A solution of peroxide of hydrogen of a strength of one part to four of water may be applied to the throat, and one to eight to the nares, or a solution of corrosive sublimate, two grains to the pint, may be used for the same purpose. In sthenic cases these measures may be supplemented by cold applications to the throat. Eclampsia, if of early occurrence, is due to hyperpyrexia, later in the disease to uræmia. Restlessness, jactitation and delirium should arouse suspicions of possible eclampsia, and the prompt employment of cold-water treatment, in addition to local antisepsis and the administration of the bromides, may forestall this serious complication. To reduce hyperpyrexia in cases not markedly adynamic, phenacetine and aconite are of value; other drugs are either unreliable or harmful. The rheumatism and nephritis occurring in the course of scarlatina may be due to cold besides bacterial infection, and it is therefore necessary to avoid exposure of the patient, especially during the stage of desquamation.

Protection of the Perineum.—Wm. S. Gardener (*Jour. of Gynecol. Univ. Med. Mag.*) writes that the value of a complete perineum is so great that the gynecologist spends much time inventing new methods for its repair. What he has to offer on this subject is only the method of applying the principle that time is the great perineal protector, bearing in mind that almost any perineum will distend sufficiently to allow the safe passage of the head, if only the head can be prevented from advancing with too great rapidity just during the last portion of the second stage of labor. The two great forces driving the child toward the outer world are the contractions of the uterus and the contractions of the abdominal muscles. There comes a time in the labor when the perineum has become so weakened by distention that it can no longer bear the great pressure of these combined forces a time when a few minutes' delay means the prevention of a rupture. Uterine action is beyond our control; the contraction of the abdominal muscles can be controlled either by complete anæsthesia or by the will of the patient. She is instructed in the interval between the pains that when she feels a pain coming on she is at once to open her mouth and breathe through it as rapidly as possible. In addition the head is held back by pressing against the perineum in the direction of the pubes. The perineum should be as carefully guarded during the passage of the shoulders as during the delivery of the head.

METHYLENE BLUE IN NEURALGIA. — Dr. Immerwahr (*Deutsche Med. Woch. — British Med. Jour.*) has recently studied the action of methylene blue in alleviating neuralgic pain, and is of opinion that under certain circumstances the drug is a valuable agent. Thus, in two cases of facial neuralgia and in three attacks of migraine complete relief was speedily obtained. Nervous headache, alcoholic depression, muscular rheumatism, and herpes zoster were also found to be benefited by the drug. Hence, although Immerwahr has not yet been able to try it on a large number of patients, he is satisfied with this new antineuralgic agent, and recommends further trials. In sciatica, methylene blue appears of no value, nor is it suited to other than nervous pain, for example, that due to ulceration of the stomach or cancer. Dr. Immerwahr administers the drug a as dry powder enclosed in gelatine capsules (2 to 5 grains for a dose), three times a day. No ill affects have attended its administration, except that after prolonged use some strangury occasionally sets in, which soon yields to small doses of powdered nutmeg. The urine assumes a blue color, which may frighten the patient unless he is forewarned of its occurrence.

RHUS AROMATICA FOR INCONTINENCE—Krauss, (*Buffalo Med. and Surg Jour.*) thus sums up a paper an this subject: Incontinence of urine, due to slight disorders of the genito-urinary or the nervous system, is amenable to the rhus treatment, which gives most favorable results. Incontinence due to destructive lesions of the spinal cord, complicating the vesical center or its reflex arc, is not amenable to the rhus treatment, which gives negative results.

If there be any cause of irritation within reach, it is removed. He then gives the rhus in doses of 5 to 10 drops of the fluid extract, encreased to 20 drops, four times daily. He prescribes it in glycerine. In anemic cases he combines rhus with iron:

R.—Ext. rhois aromat. . . . . . . flʒv.
Syr. ferri iodidi,
Elixir calisayæ . . . āā. q. s. ad ʒii.
M.—Sig. ʒss four times a day.

The prescription is incompatible pharmaceutically, as the iron and cinchona precipitate; but it does not follow that it is therapeutically incompatible; and tannate of iron probably forms a useful ingredient.

POINTS ON SYPHILIS.—The glands above Poupart's ligament are (*Times and Reg.*) the immoral glands. If you find them enlarged, examine the penis, and in nine-tenths of the cases you will find the cause there. If the swelling is in the glands below Poupart's ligament, the cause is probably in the foot. In syphilitics a heavy chill and high fever, followed by sweating, will be followed by marked secondary symptoms. Secondary symptoms beginning with a papular or tuberculous eruption show a very severe attack. Syphilitic eruptions are polymorphous; that is, many forms of eruption are present as the same time—the roseolous, erythematous, papular, etc. This is not the case in non-syphilitic eruptions, a point of diagnostic imporance. The reason the hair is lost in syphilis is that there is a poliferation of connective-tissue cells, which press on the hair-bulbs and cut off the bloody-supply and cause the hair to die. As soon as the patient is put on treatment, and these cells are absorbed, the hair again grows if the bulbs have not been destroyed. It is by means of the skin that the poison of syphilis is eliminated, as we see by the eruptions.

EXCISION OF THE APEX OF A TUBERCULOUS LUNG.—*La Gazetta Médica de Granada* reports a case of the successful excision of the apex of a tuberculous lung by Dr. Tuffieri, who, prior to the operation, had satisfied himself on its safety by a series of experimental operations on the lower animals. Cutting through skin and some fibres of the pectoralis major, Dr. Tuffieri laid bare the intercostal muscles of the second intercostal space, and cutting through these he exposed the parietal layer of the pleura which he detached from the thoracic parietes. Opening the pleura, he found the lung apex studded with tubercle and slightly shrunken. Round the apex he passed a ligature, which he attached to the second rib, and then excised five centimetres of the tuberculous mass. The patient was, on his recovery exhibited before the Surgical Society.

CHLOROFORM IN LABOR.—Dr. Rulison, *Med. Surg. Rep.*, concludes an article on the above subject as follows :

1. No pain—hence no nervous shock—consequently the " inevitable chill" does not appear.
2. It reduces the number of perineal tears to minimum.
3. It shortens labor and in several ways greatly relieves the attendants.
4. Childbirth being robbed of its chief terror, the tendency to resort to criminal practices is reduced and population consequently increased.
5. Brings increased respect for the medical attendant. The gratefulness depicted upon the countnance of the woman when informed by her attendant that she is a mother (having become so without pain) can not fail to arouse in him thoughts so pleasing that he is apt to forget, for a moment, that a doctor has any trials.

HOW FAR WEST WAS IT.—The following answers were given to the questions of a State Board of Medical Examiners: Symptoms of the œdema of the glottis are that the patient feels husky and has sore throat. I would amputate it, if necessary. I would do the operation within three or four months, if it was a bad case.

The dose of morphia sulph. for a child of five years, hypodermically, would be one-fourth grain, and if that doesn't give relief, I would give one-half grain.

The dose of antipyrin for a child five years old is fifteen grains every three hours. The kidney is a muscular formation, in shape oblong, color quite dark, weight about one pound to one and a half, but may vary considerable. The sympathetic system is composed of all the filament of nerves that start from the spinal cord, and are distributed to all parts of the system, especially the brain. The cervical portion ramifies the encephalon in general. The dorsal portion ramifies the anus.

Extra-uterine pregnancy may be fungoid growth or tumor fibroid in its character or any extra growth in the uterus would be called extra-uterine pregnancy.

A breech presentation may be known by the sense of touch, the buttox being different in formation from the cranium. The anus is different from the mouth, absence of tongue and nose. Get your finger in the inguinal region soon as possible and assist your patient by firm but gentle tension.

The normal temperature of the human body is from 112 degrees to 140 degrees.

The temperature of the system is variable. In health the cuticle stands at 70 degrees. The average respirations are 70 per minute.

The best way to facilitate the expulsion of the placenta is to let the woman get up and walk about the room, allowing five minutes to elapse after delivery before requiring her to get up and walk.

Phimosis is the result of old age.

THE PHYSICIAN'S VISITING LIST FOR 1892, published by T. Blakiston, Son & Co., is gotten up, as usual, very neatly. This is the forty-first year of its publication, a fact which goes to show that it must meet with all the requirements of a visiting physician, hence its large sale. It is more than an ordinary visiting list, as it also contains valuable information and tables. For completeness, compactness, and simplicity of arrangement, it is excelled by none in the market.

Books and Pamphlets.

DR. CANNIFF'S "HISTORY OF THE MEDICAL PROFESSION IN UPPER CANADA."

To the annalists of Canada, and to all interested in her social life, the absence of any work of an historical and biographical character, dealing with the medical profession in the early days of the Province, must hitherto have been a matter of keen regret. Luckily, the lack is now about to be supplied, and supplied by one admirably fitted to do justice to the theme. The historical narrative treating of the medical men in Upper Canada from the foundation of the Province, which Dr. William Canniff, of Toronto, is now passing through the press, ought to be hailed with satisfaction, if not with delight. The beginnings of the professions in Upper Canada necessarily introduce to us many of the men who were the makers of the Province. Of these, the physicians and army surgeons who settled in Upper Canada after the Revolutionary War, form no inconsiderable portion of that element in the community which gave substance to the national fabric and contributed to its integrity and stability. It adds no little to present-day interest in these early medical practitioners to know that not a few of them were U. E. Loyalists, and identified with the cause which led many of the then inhabitants of the Province to sacrifice their all for the sake of living under the grand old Red Cross banner of Britain. These and other interesting facts in the public and professional career of these men may be looked for in the goodly volume which Dr. Canniff has now in preparation. The volume, I take it, will primarily be of value to present-day members of the medical profession ; but its interest will by no means be confined to such. In its scope much, I believe, will be treated of which will make the work of inestimable value to the historical student as well as to the general reader. In this it will commend itself to every lover of Canadian annals, and to every well-wisher to the native literature. Coming from the pen of so devoted a student of Canadian history, and enthusiastic member of the medical profession as Dr. Canniff, the subscription list should be eagerly filled, and the work thereby hastened in its appearance. A youthful community like Canada owes too much, in many ways, to its medical men of a past generation to be indifferent to their fame or heedless to their memory.

G. MERCER ADAM.

TORONTO, November 20th, 1891.

The above criticism by Mr. G. Mercer Adam is sufficient to show the value and great importance of Dr. Canniff's work to the medical profession. There is still needed a certain number of subscriptions in order to satisfy the publishers before the work will appear, and we trust the doctor's able effort will meet with the hearty and generous support at the hands of the medical profession, which it so richly deserves. The work will be illustrated by the wood cuts of a considerable number of prominent doctors of this province, among which are Drs. Widmer, Rolph, Workman, also a picture of the first medical school building in Upper Canada, erected for the medical department of King's College. The names of those willing to subscribe may be sent to Dr. Canniff, care THE CANADA LANCET, Toronto, and will be duly acknowledged.

ESSENTIALS OF BACTERIOLOGY : Being a concise and systematic introduction to the study of Micro-organisms, for the use of Students and Practitioners, by M. V. Ball, M.D., late resident physician, German Hospital, Philadelphia ; with seventy-seven illustrations, some in colors. Philadelphia : W. B. Saunders. Toronto : Carveth & Co. 1891 ; pp. 158. $1.

A useful book for students and practitioners of medicine who are devoting any attention to the study of this important subject. The work is practical and should be in the hands of every medical student for reference, as the many allusions in current medical literature to bachnological terms, must render reading unsatisfactory without some such guide.

A MANUAL OF PRACTICAL OBSTETRICS : By Edward P Davis, A.M., M.D., Clinical Lecturer on Obstetrics in the Jefferson Medical College ; Professor of Obstetrics and Diseases of Children in the Philadelphia Polyclinic, etc., etc.. One hundred and forty illustrations. Philadelphia : P. Blackiston, Son & Co. 1891 ; pp. 198.

The author has given in this work a concise statement of modern *practical* obstetrics as taught by Parvin, Lusk. Winckel, Galabin, and others. He has omitted details of anatomy and physiology, and devotes his pages to obstetrics alone. The book contains much needful information in a small compass, and might well supplement the student's notes taken in the lecture room.

CALOMEL IN THE TREATMENT OF GALLSTONE, COLIC AND ICTERUS.—Von Sacharjine recommends (*Med. Chir. Rundschau*) calomel in doses of five grammes, at first hourly, later every two hours. The medicine is continued until the copious, greenish fetid discharges appear. The author usually gives not more than 12 doses, after which he finds no more copious stools. The patient is then given a dose of castor oil. Under the influence of this treatment there is disappearance of pain, the appetite returns, and the urine clears up.

Sometimes, unfortunately, this improvement is only temporary. In these cases the author goes back at once to the first dosage, and generally has the satisfaction of a complete cure.

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CONCERNING LITHOTOMY.*

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My mind is in some doubt, whether the time of this society could not be better employed by some one else and on some other subject, especially as I know of late how much has been written upon it, and I feel that I can only possibly provoke discussion, not offer anything that is new. My object is rather to give some of the results of operations done here and see how far they tend to make us decide in choosing any method for dealing with vesical calculus.

We are all aware that for a long period, the preference has been most markedly given to the lateral perineal operation, with little or no modifications, as firmly established by Cheselden. At times there has not been wanting strong advocates of the median medico-lateral, and even that by the rectum, with periods, too, in which the supra pubic has loomed up very vigorously, only to drop out of sight again. Lately this latter has again come into fashion so frequently that it seems more probable than at any previous time that it may supersede any and all the perineal methods. It may be that this is in a measure due to the strong fascination that abdominal incision has for reaching any abdominal organ without or within the peritoneal cavity, and that the bladder is not to be allowed to be an exception, yet I think its resurrection lies on a broader and better basis than that due mainly to a more accurate conception of its anatomical position. Bear with me, then, for a few minutes while I shortly discuss this question, "Does the supra pubic operation afford an easier, safer, and more generally satisfactory road to the bladder for the extraction of calculus than the lateral perineal operation." Dr. Garson, in a paper in 1878, in the *Edinburgh Medical Journal*, demonstrated fully that in a frozen and then hardened vertical section of the pelvis, the bladder being previously distended with cold water and the rectum also by a rubber bag filled with cold water (if you measure accurately) you find the bladder projected above the pubes and brought within easy reach, and the anterior fold of the peritoneum well above the risk of injury by anterior incision. This paper, I think, did not get the real credit of showing that by rectal dilatation the bladder becomes so accessible and therefore suitable for supra pubic operation, mainly because the experiments he made were to show the displacements the pelvic organs undergo when the hand is introduced into the rectum, as first done by Senior of Heidelburg, and from which as a means of exploration great things were hoped for, but shortly after 1880, Peterson, of Kiel, suggested the practical use and gave the great impulse to the doing of the supra pubic lithotomy.

If then the anatomical difficulties are so small, making it such an easy task to reach the bladder that much manipulation is unnecessary, that no vessel of importance lies in our path, so that hæmorrhage is usually slight, that shock is less than in other methods, we must set over against this favorable showing the risk of opening the peritoneum and septic absorption in a wound infected by the putrid urine escaping into it, and if the surgeon, anxious to avoid the peritoneum burrows down into the loose cellular tissues behind the symphisis, the risk is bound to be increased.

The points in its favor seem strong, and perhaps they will be found to be so decided that the supra pubic may become *the* operation for all classes. Yet, so far as I can learn and as far as I see in this city, it is not so yet. Most of the surgeons here with English tenacity cling to the perineal and chiefly lateral, and I have been at pains to find out their results. It is not possible to give them in a tabulated form with absolute accuracy, nor do I know where to put my hand on "recent" statistics of the two forms of operation, but certainly many surgeons have had most satisfactory results with the lateral, and I find in the last four years at the Toronto General Hospital very many more cases are operated on by the lateral than supra pubic, and the results are most encouraging, only one death, and that in a perineal medium lithotomy in a broken-down man nearly 76 years of age, and in whom the operation was done as much to secure drainage as to remove the stone. I have asked a number as to their results in private practice, and it seems to me that most surgeons in Toronto adhere to the perineal method.

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*Read before the Ont. Medical Association, June, 1891.

I know the dangers of the lateral are usually not made light of, perhaps over estimated. I have seen a good many and I cannot recall a single case of wound of the rectum; nor a fatal case of hæmorrhage or shock. I have removed a hard calculus of large size; multiplied cases, and they all did well, and yet I feel that the trend of opinion is so strongly in favor of the supra-pubic that a surgeon looked pityingly at me when I told him I still used it, and said, Come and I will show you the spot. It is especially pointed out that in children the supra-pubic is always easy and safe, because in them the anatomical conditions are naturally what we by artificial means make them in the adult, the bladder in children being almost an abdominal organ and the peritoneum well out of the way. I think this has much truth in it, and is probably the more advisable operation, notwithstanding the fact that perineal litotomy in boys under ten is a very successful operation, still it does away with two objections: first, that no injury can be done to the ejaculatory ducts leading to impotency, and again that it is not very difficult to open the recto-vesical pouch and fancy one is in the bladder, with, of course, disastrous consequences.

In the aged, with an enlarged prostate, perhaps, and dilated prostatic venous plexus, the hæmorrhage is often free, and does sometimes cause death from shock, due to the sudden abstraction of blood in a person advanced in life. Such case would be favorable for the supra-pubic, if it were not unusual to find the bladder contracted as the result of long standing irritation and disease, possibly even adherent, offering a mechanical obstacle to dilatation by fluid injected into it, and to its projection forward by distension of the rectum.

I believe, with very large stones, no one will doubt that it affords the best means, but the increase of surgical knowledge and skill in the present day is so great and so widely diffused that it is not often that stones go unrecognized in the bladder and attain such huge proportions as to debar their removal by the perineal incision.

As a means of drainage of the bladder it seems so strongly advocated by Hunter McGuire, of Richmond, and others, that the supra-pubic method of drainage will supersede the perineal.

STATISTICS.

T. 13—All lateral, all recovered.

W. 12—All lateral, all recovered.

F. 8—All lateral, seven recovered.

M. 6—Surpra pubic, one death, many lateral all cured.

THE CARDIAC PHENOMENA OF RHEUMATISM.*

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(Continued from January number.)

In endocarditis the inflammatory effusion takes place into the fibrous tissue of the membrane, the surface changes follow later. As compared with the serous membranes, as the pericardium and pleura, the inflammatory process is very circumscribed; this is owing to its slight vascularity. The reason hitherto assigned by most authors for the frequency with which the mitral valve is affected, and the rarity of the aortic, has been the greater strain to which the mitral is subjected. Later authors* give another cause which seems, on the whole, to be more potent, viz.: the fact that the central parts of the mitral segments have some vascular supply while the aortic segments are quite non-vascular. The onset of endocarditis may be accompanied by pyrexia and an appearance of illness and distress in the child's face, even while at play; or the heart's action may be tumultuous with dyspnœa, restlessness and anxiety from imperfect circulation. But such symptoms occur only in the severer cases. Valve disease gives no physical sign of its existence until it results in some deformity of the valve which either impedes or disturbs the current of blood in its passage

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* The address on Medicine, Ontario Medical Association, Toronto, June, 1891.

* Ziegler's Pathology.

through the orifice, to whose margin its segments are attached, or impairs the functions of the valves, so as permit a reflux of blood through the orifice, which they guard.

Sibson* says we are warranted in assuming that in a considerable number of cases the active stage of endocarditis is passing away at the time of the appearance of a murmur. As a general principle, it may be stated that the milder the endocardial inflammation the longer will a murmur be in appearing, and *vice versa*; in many mild cases certainly no murmur ever appears. It is probable that endocarditis may abate with complete removal of the exudative products, leaving no trace of the inflammation. Usually, however, some thickening persists, and, if slight attacks recur, in time the segments become adherent, causing stenosis of the mitral orifice, or, less frequently, probably, incompetence of the valves and regurgitation, on account of the deformity of the valves from shrinkage of the new tissue. I say less frequently, because regurgitation results usually, if not always, from the more acute attacks, while mitral obstruction probably never does.

The first sign of mitral stenosis in about half the cases is a seeming reduplication of the second sound heard at the apex only. The first of these sounds is produced by the blood passing over the tenal mitral valve, which only slightly narrows the orifice as yet; a sound is thus produced which is almost synchronous with the aortic sound and both are heard at the apex only. As the case progresses the presystolic, or rather, at first, the diastolic character of the sound becomes apparent*.

If the lesion lead to incompetence of the mitral valve, the first indication will be a prolongation of the first sound of the heart as heard at the apex. Mitral obstructive murmurs probably always persist, but regurgitant murmurs may disappear. The former are organic, the latter may be functional, being due to adynamia of the cardiamuscle. This adynamia results in imperfect contraction of the mitral orifice during systole and consequent incompetence of the mitral valve. Such murmurs disappear as soon as the heart recovers its tone, but during their existence they are indistinguishable from those of organic origin; in both conditions the heart is likely to be somewhat enlarged. While it is possible for murmurs in rheumatism to be functional; it is best, from a therapeutic point of view, to consider them all organic, and treat the case accordingly. It is worthy of remark that in rheumatism, murmurs occur earlier than do the functional murmurs of any of the other depressing diseases, thus indicating a different origin.

Pericarditis.—For want of space, only a brief reference can be made to this and to myocarditis. There is no cardiac affection, probably, more often overlooked, or whose symptoms are more often misinterpreted than pericarditis. Nothing has mortified one more than to discover in the mortuary a severe pericarditis that was not suspected in the ward. The symptoms are so liable to be masked by those of the primary disease that the possibility of its occurrence should be constantly remembered in those diseases which it often complicates, especially in rheumatism and Bright's disease.

Unlike endocarditis, it is more likely to occur in the first than in subsequent attacks of rheumatism. It is much more apt to occur in severe than in mild cases, and is usually met with from 15 to 25 years of age. It is rare in the young, yet one of the worst cases I have seen was in a child, æt six years, in the practice of my friend, Dr. Byron Field, of this city, last year. The child had a mild attack of rheumatism, the symptoms of which disappeared in a few days, when attendance ceased. Two weeks after the commencement of the rheumatism he was exceedingly pale-faced, exhausted, anxious, pulse very weak and rapid, respirations hurried and labored, so that he required to be propped up on pillows. On examination, the area of præcordial dulness was found slightly enlarged with a somewhat diffused impulse, the sounds were weak and indistinct; the temperature was slightly elevated. Over the præcordial area ill-defined friction could be detected. As was expected, autopsy showed the existence of a very severe pericarditis with abundant fibrinous exudate, and accompanied by a myocarditis affecting the whole cardiac muscle. This case illustrates the condition met with in pericarditis complicated by myocarditis at all ages. Severe, even fatal, cases of pericarditis may show very slight symptoms. Sibson found præcordial pain present in three-fourths of his cases; so that such pain, however trivial, should receive careful consideration in all cases of rheumatism.

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* Ibid.

* Sansom. Lettsomian Lectures, 1883.

Most authors agree in describing delirium of various forms as frequently present, even in the absence of febrile movement. When endocarditis complicates the case the delirium is liable to take on a suicidal tendency; and of the character of *delirium tremens*, when there is some fever with prostration.

It was most marked in " dry pericarditis, disappearing with effusion." Such pain was very marked in a case recently under my care, in which there was, as well, severe and obstinate pain, produced by the act of swallowing, probably due to pressure on the pericordium posteriorly. The disease is usually latent, however, and will escape notice unless sought for with the utmost care. In all cases there is a tendency to rapidity and weakness of the pulse with dicrotism, probably from a certain degree of implication of the myocardium.

Myocarditis probably seldom occurs independently of inflammation of either the endo- or pericardium, especially of the latter. Maclagan, however, is very positive of the frequent occurrence of a primary inflammation of the heart muscle, and that it may be diagnosed by the weak, rapid dicrotic pulse. Its existence in any case, of course, adds materially to the gravity.

Prognosis.—With the exception of cases in which the cardiac muscle is seriously affected, the immediate prognosis is usually favorable; few die as the result of the heart disease apart from myocarditis. In young children, however, suffering from acute disease, the heart yields more readily to strain, probably on account of the immaturity of the tissues, hence they bear disease badly. But if they escape the immediate effects of the disease the heart recovers itself more readily and develops more rapidly, hence compensation is soon established and emphatic. On this account we seldom see evidences of much impediment to the circulation, as great enlargement of liver and spleen, cyanosis and extreme dropsy; these are more frequent as age advances. Goodhart attributed this partly to the anæmia with diminution in the quantity of the blood as part of the general wasting.* Cheadle gives another cause. "Children with severe heart disease, as a rule, die from other causes before the stage of grave tricuspid leakage is reached. Instead of the engorged liver and lung, with blueness, extreme dyspnœa and general dropsy," as seen so often in adults, "there is rapid wasting, progressive anæmia, feebleness and death from asthma rather than from the direct injury to the mechanism of the circulation."* Fagge † says the aspect of a child with cardiac disease is rather that of phthisis. He is pale and thin, with dilated pupils, a delicate skin, and quick pulse. In older children and adults, the ultimate prognosis usually depends on the degree to which the lesion causes interference with the functions of the heart. In young, well-nourished persons it is often amazing what extensive valve changes may be compensated for, and for what almost indefinite duration the compensation may be maintained.

In older persons the prognosis will depend greatly on the condition of the vascular system, being rendered less favorable by any sclerotic or other unctous changes that may be present or develop. Leyden says that age does not impede the development of compensatory changes in cases of valve diseases. With advancing age the cardiac muscle gains in volume and power, and the heart is the only organ whose comparative bulk increases with age, so that perhaps the heart of older persons has even more endurance than that of younger ones.*

In recent cases, we should not forget that the evidences of disease, especially mitral incompetness, and occasionally aortic obstruction, may disappear after some weeks, or, it may be, months. Over against this, unfortunately, we have to set two unfavorable possibilities, namely, that a lesion which, just after its development, but slightly disturbs the mechanism of the circulation may increase, from the tendency of the new cicatrical tissue to contract, and secondly, that one attack of endocarditis predisposes to another, especially in the anæmic.

Then much will depend on the mode and circumstances of life. The prognosis is more favorable among the well-to-do, for, while they are exposed to the liability of over-feeding, with its tendency to cause arterei-selerosis and atheroma, they are spared the necessity of exposure and over exertion, which so many of the laboring class have to endure. In arriving at an opinion, all the circumstances of each individual case have to be taken into consideration.

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* Cheadle-Harveian Lectures, *Lancet*, 1889. Vol. I. p. 926.

* Ibid.

* Principles and Practice of Medicine, Vol. I. p. 983.

* Annual of the Universal Medical Sciences, 1890.

The ultimate prognosis in the large proportion of cases is, without doubt, unfavorable, yet some go through life and attain old age with marked disease of the heart, and it is better to err on the hopeful side than take too gloomy a view of any case.

The late Austin Flint used to relate a very instructive incident from his own experience on the prognosis in heart disease. Shortly after beginning practice he was consulted by the parents of a young girl with decided mitral insufficiency. His prognosis was unfavorable. He said the danger was imminent and but little improvement could be expected. He advised them to prevent all but the quickest movements. Little heed was paid to his advice; the child was allowed unrestrained freedom with other children. Twenty years afterwards Flint saw this girl, now a mature woman, leading an active, useful life.

It is scarcely necessary to an audience such as this, to say that only exceptionally should prognostic significance be attached to cardiac murmurs, since lesions of the most trivial nature may cause murmurs of the most marked character. It is true that sometimes they afford considerable assistance in judging of the future prospects of particular cases, yet these are exceptional; ordinarily they should have no place in prognosis.

Treatment.—This includes prevention as well as management of the case after the heart disease has developed. The most effectual means to prevent the cardiac disease is, of course, to prevent the rheumatism which causes it, but we have no remedies to effect this purpose. We can but avoid the causes, preserve the best attainable health, and protect the person against such influences as cold and wet, as cause rheumatism.

If the rheumatism occur we are then driven back to preventing the heart becoming involved. To do so we should arrest the rheumatic process as soon as possible. It is claimed by many capable observers that the alkalies are our best remedies for this purpose, and that if given freely before the heart becomes affected that they will prevent that complication. More recently it is claimed that under the salicylates the heart enjoys equal immunity. Being compatible with each other, most physicians try to obtain the good effect of both by combining them. How far either or both these remedies deserve credit for power to prevent this phase of rheumatism is uncertain, but there is no doubt that they have little or no influence over the cardiac disease once that is established. As further aids in preventing the heart affection we should promote excretion so as to relieve the system from the irritation of the waste products and thus relieve the heart also from the increased labor incident to retention of waste in the blood. The purer the blood the more easily is the circulation maintained.

Then the nutrition should be carefully maintained by the administration of light liquid nutritious food at short intervals so as to forestall the anæmia that almost always threatens. And the condition of as complete rest as possible should be maintained, so as to relieve the heart of all the strain possible, even in the mildest cases, in children particularly.

Sibson,* in his wide experience, found that while absolute quiet and rest seemed to have little influence in preventing the occurence of the signs of heart lesions, it had great power over the permanence and increase in those lesions. He found that the signs of heart disease completely disappeared or persisted only in a slight degree in a much larger proportion of those cases who had been kept at rest and carefully tended than in those who were allowed freedom to exert themselves, even though otherwise well cared for. It therefore becomes of the utmost importance that rheumatic persons, especially the young, should be put to bed on the first symptoms, however trivial, showing themselves, and that they should be kept there until so far recovered from the rheumatism and its attendant anæmia, as to ensure the safety of the heart, and protect against a relapse of the rheumatism.

In the anæmic and debililated attacked by rheumatism, it is doubtful if the benefit derived from the alkalies and salicylates, especially the latter, is not more than counterbalanced by their tendency to increase the anæmia, and thus the liablity to heart disease. For my own part I have seen more benefit apparently result from the free administration of iron in these cases, preferably the tincture of the chloride. If salicylates are given to such patients they should be discontinued as soon as the acute symptoms are overcome, the iron being given from the beginning and continued.

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*Ibid.

In children, in whom as already pointed out, rheumatism is so seldom acute, there is rarely occasion for heroic treatment with salicylates; besides it is probable that the alkalies are more potent in them in preventing the heart affection. Then the first tendency to anæmia in rheumatic children should be constantly before our minds and no effort should be spared in counteracting it by every possible means; therefore great care must be exercised in diet, which should be nutritious and easily assimulated. At the same time care is needed to prevent over feeding and the risk of a relapse.

The securing of adequate rest is the most difficult part of the treatment of heart disease in children, especially in boys, particularly as the rheumatism is usually so mild. When first seen, the heart s often affected. Many a boy has had his heart rretrievably damaged and his life cut short by being allowed, while subject to latent recurrent attacks of rheumatism, to indulge in the usual games that are healthful to the healthful boy

Selected Articles.

A CLINICAL LECTURE ON COMMON DISEASES OF THE RECTUM.

We are constantly having in the wards cases of severe disease of the rectum—I mean cases of piles which require operation, cases of fistula, and cases of cancer. I propose to-day to speak rather of the commoner cases of disease of the rectum, such as you will meet with among out-patients and in your own practice later on. Ordinarily the rectum performs its function without any disagreeables, and when one has a healthy evacuation of the bowels there is a feeling of relief which is somewhat remarkable. That evacuation, of course, should be perfectly painless, and in the great majority of instances it is so; but you will find, when you get into practice, that patients will complain to you in the first place that they cannot get the bowels open, and then perhaps they will say that when they have had them opened they suffer such pain that they dread every operation.

With regard to the question whether a daily action of the bowels is essential to good health, I may say that no doubt, with the great majority of persons, a daily action is a necessity, but still you may meet with people who are a little different in that respect, and will go two, or even three or four, days without evacuation and without any discomfort. I mention that because it is well to consider the idiosyncrasy of each individual. It is of no use, where you have torpid bowels and a weak condition of the muscular fibre generally, such as you meet with for instance in elderly females and anæmic persons, to try and force them by violent purgation into the ordinary daily habits of healthy people. Of course, if you take a healthy person, you have there a standard, but you may find variations from it for which you must be prepared. As to the time at which the bowels should be opened, that of course in many cases, is a matter of simple convenience. The busy man, going off to catch a train immediately after breakfast, had better perhaps have his bewels opened at night, but a person who has a little leisure, and, moreover, is able to enjoy that matutinal pipe which, I am told, is so extremely useful in producing an alvine action, may well repair to the water closet after breakfast; but take my word for it, that patients who have anything the matter with the rectum, who suffer in any way upon the discharge of fæces, should, as a rule have their bowels opened at night; and the reason is obvious. The action of the bowels takes place more conveniently after they have undressed: that is an important point in connection with women who wear tight stays—when they are in their dressing-gowns or nightgowns they have much more power to empty the bowel than at any other time, and immediately after they have done so they can repair to bed, where they can lie in a horizontal position for eight or ten hours, so that any little inconvenience, any disarrangement of the vascular supply of the bowel passes off, and in the morning they are quite well.

If there is any difficulty about the action of the bowels patients are only too ready to fly to purgative medicine. You have only to read the advertisement columns of the newspapers to see what fortunes are made by purgative pills. The great secret of these pills is that they are extremely mild, so that it takes half-a-dozen to produce any action, and the patient will very soon get through a box of twenty or twenty-five, and then will have to buy another box. There is a sort of popular idea that anything like aloes is very apt to do harm to the lower bowel. I believe that is a pure delusion. Patients who have trouble about the rectum can use aloes without any particular disadvantage; indeed, I think it is rather a good drug to prescribe, because it has a stimulating effect upon the lower bowel.

Then, besides purgatives, which are not to be had recourse to unnecessarily, we have ordinary laxatives, and the fashionable laxative of the present day is some form of mineral water. You find large quantities of mineral waters advertised, which are more or less artificial in their manufacture, and which can be drunk in quantities, say, of a wineglass in a tumblerful of warm water before breakfast, producing an alvine evacuation soon after breakfast. That is an example of the kind of thing people are now in the habit of taking. But there are very much older remedies; for example, there is sulphur, a teaspoonful or two of which may be conveniently taken in milk. The old-fashioned confection of senna has been superseded now pretty much by the nicer preparation of compound liquorice powder, a teaspoonful or two in a little water early in the morning or over-night producing an easy evacuation in the morning.

Then there are methods of attacking the bowel itself. By far the simplest and the best method —very little used in this country, comparatively speaking—is the ordinary enema. You will find that enemata are very seldom prescribed nowadays, but if you have cold water thrown up into the bowel with a simple Higginson's syringe, such as I hold in my hand, you will help many patients to produce an evacuation comfortably, without any distressing strain. There is no need for any complication of reservoirs or anything of that kind for the water which you throw up into the bowel. In the present days of water-closets, all that the patient has to do is to empty out the pan of the water-closet, fill it up with cold water, and, having previously filled the syringe, then introduce the pipe into the bowel, and inject a pint or a pint and a half of water, After waiting a few minutes, the strain upon the sphincter becomes a little strong; the evacuation takes place, and the fæces are brought away with the enema. It is curious how little these enemata are used in this country as compared with France. In England there is a sort of modesty about these things, and you will find that people object to an enema when its use is very advisable. Many women in particular, who have a somewhat feeble lower bowel, derive great advantage from throwing up cold water into the bowel at the time of the action.

Then there is another thing that has come into fashion of late—the injection of small quantities of glycerine, which no doubt in many cases is extremely useful. The chemists sell a small syringe for the purpose, holding from one to two drachms, and patients have got into the habit of throwing up a small quantity of glycerine just within the sphincter, and in a few minutes the action is produced. In many cases—I will not say in all—it is really a very efficient remedy.

Another thing that I may mention I have known for a great many years, but I find very few people comparatively know of it. The difficulty which many persons experience in getting rid of a mass of fæces which has been lodged in the upper part of the rectum and become a little inspissated and hard, can be got over entirely by pressure with the finger just beyond the tip of the coccyx. There is plenty of room between the tip of the coccyx and the anal orifice for the finger to be pressed against the rectum, and you will find that the hard motion which has lodged in the rectum is pushed out through the sphincter, and being once through it is promptly passed, and the softer matter follows easily enough.

You must be prepared sometimes to find that a woman who is having apparently a healthy evacuation daily yet retains in the upper part of the rectum large masses of fæces in the shape of balls. It is very remarkable how fæces get retained in this way. I cannot tell you why it should happen with one patient more than another, but I have seen it over and over again; the fæces rub against one another, and become formed into distinct balls, which remain there, and which the patient cannot get rid of by any voluntary effort. I am quite sure this is much more common than is generally supposed. I have met with it many times, and always in women, not necessarily women who have borne families, but generally elderly women; they complain that they are never comfortable, that they never get that feeling of relief they should have, but are always straining and bearing down almost as if in labor, and at last matters come almost to a stoppage. It then becomes a question of clearing out these hard balls of fæces with a lithotomy scoop or the handle of a table spoon, which will do on an emergency. In that manner you can evacuate the bowel in a way that the patient cannot do for herself. It is quite worth while, then, when a woman complains of uneasiness about the rectum, to put the finger up so as to make yourself thoroughly sure that the upper part is not blocked with these balls.

Suppose, now, that the patient complains that every time he has an evacuation he feels pain, and that the pain lasts for an hour or two afterwards, and is really so bad that he dreads every evacuation. You may at once say in such a case that the patient is suffering from fissure, though the patient very likely thinks he has piles. Now a fissure, in the great majority of cases, is, I believe, a tear; the patient has happened to have a very hard motion, which has been forced through the sphincter, and has distended the part, and torn the mucous membrane. That is, no doubt, the explanation of the formation of a fissure in most cases. In addition to that, there may be, if it is a long-standing case, a little ulcer above the sphincter which communicates with the fissure. But, presuming that it is a comparatively recent case, and simply a fissure, if you look at the anus you will see a little crack running up through the mucous membrane; and if you put in your finger, which should of course be greased, the sphincter spasmodically contracts, but if you gently insinuate it with a twisting movement you will at last pass through, giving the patient considerable pain, but you will ascertain that you have there the crack running up the anus through the mucous membrane only, but going down to the fibres of the sphincter. Of course there is nothing so good as a finger for ascertaining this, but if you have any doubt you can use a small bivalve speculum, which is introduced closed, and is then opened so as to bring the aperture opposite where you think the crack is, and you can then see the fissure running up through the anus. There is also another variety of speculum—the small Fergusson's speculum—with an opening at the end, or with the opening running the whole length.

These cases of fissure are very often of long standing, and in that case you very commonly find that there is a little mass of granulation protruding into the fissure, sometimes wrongly called a polypus. You should always look for that, because it is important to remove it. The reason why a fissure is so excrutiatingly painful is that it runs down to the fibres of the sphincter, and when the fæces pass they irritate the fissure and the sphincter, and there is a spasmodic contraction of the muscle, which is exceedingly painful, so that the patient tells you he is obliged to lie down for a couple of hours after an evacuation, and he feels sore for some time. These cases are very readily cured. If it is a recent fissure, and if the patient is in delicate health, say a pregnant woman, you may not care to do more than apply something locally to the fissure, and if it is simply a superficial one, I know nothing better than some form of belladonna, either belladonna ointment, or, what is rather nicer, ointment made up by mixing a grain of sulphate of atropine and half an ounce of lard. That makes a good ointment, not too strong for use, and it relieves the patient very much, and seems to help the part to heal up. But it must be a very slight case for that to cure it. The same thing may be said with regard to nitrate of silver. It will cure fissure if you are very careful.. If you have a sharp pointed stick, and then through a speculum draw it down just into the fissure, so as to go quite to the bottom, it may be possible to cure it. But I strongly advise, in most cases of fissure, that you should do something a little more active. The best thing is to over-dilate the sphincter. If you over-dilate the sphincter, you no doubt tear a few superficial fibres, and thereby paralyse the muscle a little, and the consequence is you cure the fissure. The simplest way is to put two fingers, or better, two thumbs, into the anus, and grasping the buttock, then draw them apart. As it is painful, it is well worth while giving an anæsthetic; but it is not a long operation, and it does not lay the patient up. If he is kept quiet for a couple of hours he is immediately relieved of pain, and the first time there is an evacuation there is no pain at all. Another way is to notch the sphincter with a bistoury. That is a thing which in the early part of the century was made a very serious operation of by cutting through the whole sphincter, which is quite unnecessary. It is quite sufficient simply to notch and divide the superficial fibres of the sphincter. You pass a blunt pointed-bistoury with the finger into the rectum, turn the edge of the bistoury to the fissure, and withdraw the knife and finger together. Some prefer that operation, but I do not think it makes much difference which you do. It is well, however, sometimes to be able to assure a nervous patient that there need be no cutting operation.

With regard to the little ulcer which occasionally exists within the bowel in connection with a fissure, there is no doubt that in that case division is best, because the bistoury is carried through the ulcer, and it cures both it and the fissure. But if there is an ulcer the case takes longer to heal; you have to lay the patient up a week or ten days because the cut has gone through the ulcer.

Another thing of which patients complain is pruritus ani. The patient will tell you that he is worried to death by itching about the anus; that it comes on as a rule at night when he gets warm in bed; that he loses his rest, and that his health is thereby considerably interfered with. There are various causes for pruritus ani. It is well to remember that there may be some local cause which can be got rid of at once. One of the common causes of pruritus ani in children, and sometimes in adults, is the presence of ascarides in the rectum Within the last few years the views about ascarides have a great deal altered. It used to be thought that they lodged entirely in the rectum, and that you could cure the patient by copious enemata, usually of salt and water. But it has been shown within the last few years that that is not a fact, and that these ascarides have their habitat mainly in the cæcum, and are to be found more or less throughout the whole length of the large intestine. You must bear in mind, then, that it is not sufficient simply to attack the rectum with enemata, but you must give purgative medicine also, which will act upon the cæcum and clear away the worms themselves and the mucus in which they are lodged. You may often see them coming away in large balls as the result of purgative medicine, and until they are thoroughly cleared out you cannot hope to cure the patient.

Another thing to bear in mind is that you may occasionally have pediculi. The pediculus pubis, the ordinary crab of the pubes, if it exists, may find its way readily round to the anus. It is therefore well worth while to make an inspection both of the pubic hairs and of the anus, to see whether or not you can detect the pediculus, which, as may well be seen with a magnifying glass, bears a close resemblance to an ordinary crab. If once made out, this is readily cured. You can get rid of crabs by two or three applications of some mercurial lotion, such as the lotio hydrargyri flava, carefully soaked into the hairs, which will kill the pediculi, and hot water and soap will then put matters right.

But, unfortunately, as we know to our cost, pruritus ani does not always depend upon local causes. You find that a patient is perfectly cleanly and that no worms exist in the rectum, and yet he suffers almost agonies from pruritus. If you consult the authorities you will find that every remedy that has ever been recommended has been tried with more or less success, which shows how little successful the remedies really are. For myself I rather believe in lotions than in ointments. On the other hand I allow that sometimes ointments answer extremely well; but I think you may get most relief, in the majority of cases, in the first place by attending to the general health, keeping the bowels regular, and so on, and then applying locally some sedative. Cocaine is not a bad thing to apply. A five per cent solution of cocaine painted over the anus will often give great relief. Before cocaine came in we used hydrocyanic acid, and that was extremely useful in the form of a lotion of dilute hydrocyanic acid and lead. Opium and belladonna, atropine (the essential part of belladonna) and all the various sedatives have been tried from time to time with more or less success, and, I am sorry to say, with more or less failure. It is a curious thing, but you will find that patients sometimes go on for a long time suffering with this annoying and troublesome complaint, which no remedy seems to touch, and then they get well; but it does not always appear what it is that has cured them.

Then we meet, as we do everywhere, occasionally, with syphilitic affections of the anus. Children are brought to the hospital from time to time with distinct mucous tubercles about the anus. It is a little difficult sometimes to explain this occurrence, but I believe the explanation often is the ridiculous habit that mothers and nurses have of kissing the children all over. They are not particular what part of the child they kiss; and sometimes the unfortunate child's anus is inoculated in that way from the lips of the nurse. But you will find cases that you cannot account for in that way. There is no doubt that from time to time we have mucous tubercles simply from vaginal discharges creeping round: I mean that a woman has mucous tubercles of the vagina, or labia, and the discharge run back to the anns and produces mucous tubercles there. Occasionally you may also find that persons get them from their bed-fellows. I do not mean by any outrageous bestiality, but that some contact from their bed fellows has accidentially inoculated that part. Mucous tubercles are readily recognised as flat moist patches, and the only thing I will say about them is that you must be careful in treating them to keep the adjacent parts from rubbing one against the other. If you have to treat mucous tubercles about the anus apply some mercurial dressing which shall separate the two sides of the buttocks and prevent their rubbing together. I have always found that the best plan is to take a piece of linen, spread it with white precipitate ointment, and tell the woman to fold it so that the ointment shall be outside, and then to draw it thoroughly between the buttocks, so that the mercurial ointment shall come in contact with the anus and thus become rubbed into the system. You will remember that mucous tubercles are but a symptom of secondary syphilis, and if you find them about the anus you may be sure that the individual has syphilis in his system, and their treatment will be only part of the general treatment of syphilis, into which I need not now enter.

Then we find occasionally about the anus what are termed rhagades. There is hypertrophy of the skin of the anus with ulceration in the cracks between the folds, which is undoubtedly syphilitic, and should be treated very much like mucous tubercles. But you will find occasionally that there are considerable outgrowths of moist skin about the anus which are commonly called "tabs." They are not really a disease, but are only a symptom, and wherever you see them you may be sure that the woman—for they usually occur in women—has syphilitic disease of the rectum. You should at once introduce the finger, and you will probably find ulceration of the rectum of a tertiary syphilitic character, with very likely more or less stricture. We do not happen to have had lately in my wards any case of the kind, but you will see from time to time women who have had these tertiary ulcerations of the rectum, which lead later on to very severe stricture, and occasionally require operative interference.

A mother may come to you saying that her child's body comes down—that is the expression generally used among the poorer classes—and she at once assumes that it is a case of prolapsus. Now, be on your guard about that, because cases of the "body coming down" are not all cases of prolapsus. Of course many are, but you should observe the case for yourself, and take the trouble to put your finger into the bowel. In many cases you will find that there is a little pedunculated growth hanging there, which, when the child strains, comes through the sphincter or presents at the anus, and which is nothing more nor less than a polypus. These small rectal polypi are not uncommon in children, and the remarkable thing about them is that they generally cause some hæmorrhage. Every time the bowel is open there is some little blood noticed in the stools, and yet if you come to treat them by taking hold of them with your nail and tearing through the pedicle there is no bleeding, and the case gets well directly. If the pedicle is at all thick it is wiser perhaps to put a ligature upon it, but if it is a simple polypus in a child you may, without scruple, tear through the pedicle with your nail and bring the little vascular body away, and no hæmorrhage ensues. So much for polypi, which you occasionally find in young adults in whom they become more or less indurated, and, though they are not nearly so vascular, they are thought to be piles. The patient says he has piles, and that every time he goes to the closet the pile comes down, but when you see it, it is simply a pedunculated mass, which should be treated by putting a ligature round the pedicle and cutting it off.

True prolapse occurs both in children and in adults. In children it occurs most frequently, I believe, as the result of debility and, also, no doubt, as the result of the bad habit which is so common, of allowing children to sit and strain their bowels after they have already evacuated, and at last they strain down the mucous membrane. These are really cases of prolapse. There may be a more severe condition, which we call procidentia, where the whole bowel comes down. That is more serious, and I will speak of it presently.

Prolapse may be a symptom of other disease. It is not very uncommon in cases of stone in the bladder to find a child straining to make water and bringing down the rectum at the same time. It is therefore well to bear in mind that you may have another disease behind and to enquire whether the child has serious trouble in making water. But ordinary cases of prolapsus are cases simply of debility, the child is of weak habit altogether, and the bowel has got into the way of coming down on very slight occasions. The great thing is to break through the habit, and if you can make the mother take a little trouble you can break through it readily enough. With a circular opening like the anus very little will bring down the mucous membrane through it, but if you can get the mother to hold the child when it is going to have an ovacu ation and to put the finger down the verge of the anus and draw on one side, and thus convert the circular opening into an elongated slit, then the mucous membrane is considerably puzzled to come down, and practically it does not prolapse. What I always promise mothers is that if for one week they will take the trouble to do this and so prevent the bowel from coming down the case will probably be cured. In addition to that little manœuvre it is well of course to brace up the bowel by throwing in cold water with an enema syringe, both before and after evacuation, and to give the child a tonic, particularly an iron tonic.

If the bowel comes down and is allowed to remain down for some hours, you may find it rather a difficult job to put it back. The shortest way is to give the child chloroform, then to manipulate the bowel and to return it with the piece of lint with which you have manipulated it. If you simply push the prolapse up and take your fingers away, it comes down directly; but if you take a strip of lint and then squeeze the blood out of the bowel, you can push the lint and bowel back together, and the lint remaining in the lumen of the bowel keeps it in its place. After some hours the lint will come away spontaneously, or with the next evacuation, and then the case is relieved. In order to keep up the bowel in an obstinate case it is not a bad plan to do as Mr. Ionides did in a case that he had here lately, namely, put a strip of plaster across to hold the two buttocks together, so as to prevent the bowel coming down again.

These cases of simple prolapse are readily enough treated, even in the adult; but we occasionally get cases of procidentia, where the whole bowel comes out, and they are exceedingly difficult to cure. It is curious that women who have that kind of thing sometimes seem to have a morbid liking for it. They do not want to get cured; it is a form of hysteria, no doubt; they like to be made martyrs of—to be kept in bed, to be always suffering, and to have their friends rallying round them, converting their bedroom into a sort of reception room. I shall never forget one case I was called to see. It was that of a lady, who was a leading light amongst her religious party, and who had been confined to her bed for many months—I fancy for years—by a large prolapse of the bowel. I was asked to examine her, and I could find no reason why the bowel should not be returned. But she did not want it returned, and she resisted every effort that I made; the moment I put it back she strained and drove the bowel down again, so that I had to give it up as a bad job.

Within the last few years I have been very successful in curing some of these cases in the hospital with the actual cautery. If you have a great prolapsed bowel, of course it will never do to cut it off. If you did that, you would probably find that, just as with a prolapsed uterus, you would cut off a piece of peritoneum. But when you have a prolapse forming a large sausage-like projection from the rectum, you can apply nitric acid, which some recommend, but which I do not think quite sufficient for the purpose. I prefer to use Paquelin's cautery. The method is to draw a series of vertical lines upon the prolapse, and then, under chloroform, to put the part thoroughly back, and with the cautery to cut two or three deep grooves in the anus itself, because in these cases it is enormously dilated, and, unless you thoroughly contract up the anus, no power will keep the bowel within. Then, of course, you lock up the bowels with opium, and keep the patient carefully in bed. As far as I have seen, we generally get a cure in such cases, though sometimes the cautery has to be applied more than once.

A patient comes to you, and says that he is very uncomfortable because he has a little swelling which is very painful. You will find a little bluish mass by the side of the anus, and as far as I have seen it is more common in men than in women. It is nothing more nor less than a thrombus in one of the inferior hæmorrhoidal veins. You find, perhaps, that the patient has been dining out once or twice of late, and his bowels have become a little constipated and the liver overloaded, and the venous circulation obstructed. Every now and then patients will go on suffering this inconvenience for a few days without taking advice, and the thing gets well; that is, it gets well by absorption of the blood clot, and by leaving a loose fold of skin at the verge of the anus. That is how those loose external piles we see so commonly are formed. But if you get the case in an early stage, by far the best thing to do is to make a little nick with a bistoury into the swelling, and to turn the clot out. It turns out very readily; you get rid of the thrombus, and you see the lining wall of the vein left behind; you put a little iodoform to it, and the thing heals up in a day or two, so that the patient has no further trouble.

One word with regard to ischio-rectal abscesses. The patient may have an abscess in the ischio-rectal fossa from various causes. It may be from internal causes such as ulceration, which is often tuberculous, or a fish bone, or a bone or a pin may have passed through the bowel and then become entangled in the sphincter, producing perforation; or it may arise from external causes, such as sitting on damp grass, on the wet seat of an omnibus, or things of that kind which have a tendency to produce local irritation and inflammation about the buttocks. From whatever cause it may happen the symptoms are much the same. The patient has a phlegmonous swelling, which is hot and tender, between the ischium and the anus, and the ischio-rectal fossa is filled up with inflammatory deposit, which rapidly becomes purulent. In a case of that kind the sooner you make an opening and let the matter out the better, for if it is allowed to remain it will burrow up into the rectum. The best way is to put the patient on his hands and knees, then to pass the finger into the rectum, left or right, according to circumstances; you then introduce a bistoury by the side of the rectum and cut outwards. You have the patient completely under your control by the finger in the rectum, so that you can hold him firmly, and you can put the knife down by the side of the rectum, and just cut sufficiently to let the matter out freely. Then comes the question, Shall you do more? Shall you lay the abscess open into the rectum? That will depend upon how thin the rectum is. If the abscess has already encroached upon the rectum so that it is thin, it is better to lay it open at once into the rectum, because if you leave it, it will degenerate into a fistula, and you will be doing one operation instead of two.

You will know at once by the smell whether or not the abscess communicates with the rectum. Nothing is more offensive than the smell of pus in an ischio-rectal abscess which communicates with the rectum. In these cases there is no doubt about laying the bowel open; but in other cases, where it is a superficial abscess due to external causes, there will probably be no smell, and then I advise you not to lay the rectum open unless you have reason to think that it has been encroached upon.

Lastly, one word about hæmorrhage from the bowel. A patient comes to you and says: "I lose a little blood from the bowel, but I do not think it does any harm." That is perfectly true; an occasional discharge from the bowel is in many cases a salutary thing. You remember how the rectum is supplied with blood from the inferior mesenteric as well as from the iliac and pudic arteries, and that all the arteries inosculate, while the veins communicate with the vena portæ as well as the pudic veins, so that a slight hæmorrhage may in that way relieve a congested liver. But it is different if the patient loses considerable quantities of blood from the rectum; and you should always be on your guard to inquire whether the blood is simply mixed with the motion or whether it is spurted over the pan of the closet, because in the latter case it is obvious that it must be arterial blood or venous blood in considerable quantities shot out by the muscular efforts of the rectum. In either case the patient may lose more blood than is good for him. It may depend upon internal piles, and in the majority of cases it is so; but of the treatment of these I am not going to speak to-day.

There is one thing that causes hæmorrhage, and that is a vascular patch of mucous membrane in the rectum. When you expose it with the speculum you see blood pouring out from it. Those cases can be treated very readily by the application of caustic. They are the only cases of piles or rectal disease which really do well with caustic. To apply nitric acid to great masses of internal piles is really to play with them. But if on passing the speculum you can distinctly see a vascular surface, which bleeds very readily, I advise you to touch it freely with a piece of stick dipped in the strongest fuming nitric acid, or, as I prefer, the acid nitrate of mercury, the effect of which will be that you will arrest the hæmorrhage immediately. You should then lock up the bowels with a little opium for a day or two to give rest, and the next time the patient has an evacuation there will be no bleeding, or, at least, much less; possibly another application may be required.

I will take another opportunity of speaking of hæmorrhoids, fistula, and so on. To-day I have merely gone through these minor matters, which, after all, are very important, both to the patient and the practitioner.—Christopher Heath, F. R. C. S., in *Br. Med. Jour.*

THE MEDICAL TREATMENT OF APPENDICITIS, WITH A REPORT OF FIVE CASES ENDING IN RECOVERY.

The diagnosis, symptomatology, and pathology of diseases in the region of the cæcum have been so recently and ably given by Drs. Price and Morton, members of the Society, that it would be useless for me to go over the ground again and attempt to add anything new on the subject. Surgery has made such marvelous advancement, and accomplished such brilliant results, in the last decade, that the medical treatment of certain diseases appears, at least for the time being, to be eclipsed. I am led to believe, from my limited experience, that some of our younger surgeons are too ready to perform abdominal section before they have exhausted the medieal armamentarium, which, though perhaps somewhat slower, *may* be surer, and subject the patient to less risk.

I think the surgeon, in consultation with the physician, will be able to determine and select the cases for operation, if they are so fortunate as to see them in their incipiency; but in many of these cases the physician is called in late, and the surgeon later—too late in some cases.

We are all more or less infatuated with the wonderful results of present surgery, because, I think, it is something tangible. We make our diagnosis of appendicitis, open the abdomen, and remove the diseased organ. There is the ocular proof of our skill in the diagnosis and operation. In medical treatment our evidence, if we can produce any, is not so conclusive. It is of a more circumstantial character.

No one of the same experience feels more deeply than I do the debt of gratitude we owe to aggressive surgeons, and no one, I think, takes the knife with more satisfaction; but I must always be *certain* that it is the *only* or safest method for the patient.

In the five cases which I wish to report, I demonstrated within twenty-four hours—in four of them, at least—that an operation was not necessary, and all the five recovered without section. You may infer that they were all mild or benign. Three of them were, because seen early and treated vigorously.

Perhaps the title of my paper is not broad enough to cover it, but I wish to include in the medical treatment of typhlitis everything short of surgical operations, for I rely as much, or more, on mechanical measures as on internal medication. I wish to report what I consider as the most critical case first, though it was my third in regard to date. The first case dates from March, 1889.

In four of the cases other physicians had been in attendance, or saw the patient with me in consultation. Two of the cases came to my notice late in the disease, and, to make the history complete, I shall be obliged to read parts of several letters which were kindly written to me by the physicians who first had the cases in charge.

For the previous history of the first case I am indebted to the kindness of Dr. Edwin B. Wheeler, who wrote me the following letter two months after treating the case:

"Was called to see Master A., thirteen years old, Thursday, April 2, 1890. He had been constipated a day or two, evidence conflicting as to the condition of the bowels previous to that time. There had been no diarrhœa, however. I first thought it a case of typhoid fever, as the father had just recovered from that disease. I ordered a powder of calomel, but no action. Then gave one bottle of citrate of magnesia in half-bottle doses, with no result. The pain and tenderness in inguinal region increasing. Some tympanites. Gave injection of tepid, soapy water, with a few drops of turpentine, without any result. On Friday I gave drachm doses of Rochelle salts in one-third of a glass of water every hour for four doses, and tincture of hyoscyamus. There was no result, so far as any action of the bowels was concerned. The vomiting was increasing, and the tenderness covering a larger area. During this time it had become apparent that we had to deal with an obstructed bowel, due either to intussusception, typhlitis, or perityphlitis.

"Injections on Saturday morning were not retained. Passed up a catheter, but still injection was not retained. Gave morphine in small doses. Saturday p.m., Dr. J. H. Cripps saw the case with me. We agreed as to the case, but were both on the fence as to the advisability of section. We then called in Dr. Noble, of the Kensington Hospital, Saturday, 6 p.m. After talking over the case, we concluded that the boy's best chance was to have the belly opened and the obstruction removed. We ordered a room cleaned, and agreed to see the case the next day.

"At 9 a.m. Sunday, April 6, we (Drs. Cripps, Noble, and myself) met, and concluded that the boy's chance would be slight if we operated in such unsanitary quarters, with such nursing as the father and mother could give. The parents agreeing, we wrote to the Pennsylvania Hospital, asking them to take the case, the father to let me know the result of his errand. We separated with the understanding that if the hospital refused to admit him, we would operate, Dr. Noble saying he would hold himself in readiness until 2 p.m.

"About 11 a.m the father informed me that the hospital authorities would send for the case as soon as I desired. I sent him back to the hospital with word to send for the case immediately. Somewhere about 3 p.m. the father informed me that he had been down town, but did not go to the hospital. He had stopped to see the boy's aunt, who said he should not go to the hospital. Whereupon I dismissed the case, refusing to have anything further to do with it. The case has certainly resulted very fortunately in your hands, and I am truly pleased, etc."

I will not go fully into the diagnosis of this case, for I was perfectly satisfied when I learned from the father, who had consulted in the case.

I was called in to the case at 10 p.m. Sunday, April 6. The symptoms all indicated complete obstruction of the bowels, and collapse. He had vomited first on Wednesday. The temperature was 96½°; pulse indistinct at wrist; heart was 140 per minute and he was in a cold perspiration; respiration, 40. Abdomen exceedingly tympanitic, and bladder much distended. There was stercoraceous vomiting, and nothing had been kept on the stomach for days. I at once gave a hypodermic of morphine, atropine, and strychnine, and then emptied the bladder by a catheter, and about sixteen ounces of water passed. The patient was apparently moribund, but revived somewhat after the hypodermic injection; and though I feared he would die while giving it, I knew there was no time to lose, and thought there might be a slight chance for life if the obstruction could be removed, so I had him supported in the knee-chest position, and injected a pint of warm liquid containing castor-oil, turpentine, whiskey, and Epsom salts. This was about 11 p.m.

This was kept in the bowel for half an hour by a compress, held in position by the hand; then he was allowed to lie down on the right side. Within an hour there was copious evacuation of liquid with scybalous masses. The injection was repeated at 12 o'clock, and another free movement resulted. These greatly relieved the tympany and pain. We then began to give turpentine and whisky by the mouth, once in two hours, and also a drachm of Epsom salts in hot water once in two hours alternately. Only the first dose of salts was rejected. The whisky and turpentine were retained. These were regularly administered through the night. I left the patient at 1 a.m. asleep, and he had become much more comfortable.

On returning in the morning, I found there had been several more movements, and the bladder had been emptied naturally. The tumor over the right iliac fossa had nearly disappeared, and the pain and tenderness were much less. The temperature was normal. The tongue and sordes on teeth indicated typhoid fever. There were five movements of the bowels within twenty-four hours after the enema, and not less than three to six any day after for two weeks. The temperature gradually rose to 102°, and the evening temperature was about that for a week, when it gradually declined, but did not become normal till the 29th, or three weeks from the time I first saw the case. The stools had quite the appearance of typhoid, as did the tongue, and there was a suspicious eruption on the chest and abdomen. After the obstruction was removed the case was treated as a simple case of typhoid fever. He had 2 grains of quinine and $\frac{1}{30}$ of a grain of strychnine three times a day, with nitro-muriatic acid, pepsin, and bismuth every four hours, and paregoric when needed to control the bowels, and a liquid diet throughout.

At noon, the fourteenth day after I first saw him, after some pain and flatus, he passed a slough from the bowel, which, in the recent state, was elliptical and two and a half inches the long diameter. There seemed to be some pain and tendency to collapse, so he got another hypodermic and free stimulation. There was also a rise of 2° in temperature. He rallied the next day and made a rapid and complete recovery.

On May 6, which was just a month from the time I first saw him, he sat up and took solid food.

He is a strong, healthy boy, and now drives for me.

I watched the case very closely throughout, and feel certain that the intussusception, or typhlitis, or perityphlitis, was followed by a clear case of typhoid fever. I am by no means so clear in regard to the pathological condition in the region of the cæcum, and shall greatly appreciate the views of the members of the Society on that point.

The second case, Mr. M. K., who is a prominent and very active literary man in this city, dates from March 24, 1889.

The patient gave me a very intelligent history of his case, which was that there had been a gradual decrease in the evacuations for several weeks, with a great deal of distention and discomfort of abdomen, and finally obstinate constipation followed. When I first saw him there had been no movement for several days.

He had a tumor and localized pain in the right iliac fossa. Temperature 103½°. Pulse 120. Coated tongue, etc.

He was given a hypodermic of morphine and atropine for the pain, which gradually spread over the abdomen as the gas accumulated. Two large doses of castor oil and turpentine were taken without any action. He took calomel, soda and ipecac powders for twelve hours, followed by Hunyadi water, but still there was no movement of the bowels. We then resorted to the enemata of turpentine, laudanum, castor oil, Epsom salts, and hot water, given in the knee-chest position. These moved the bowels freely and relieved the pain and distention. Turpentine stupes were also used freely.

There was a double inguinal hernia in this case, and to satisfy ourselves that there was no strangulation of the gut Dr. W. W. Keen was called in consultation, and pronounced the case free from any such complication, and confirmed the diagnosis of appendicitis. He suggested pills of colocynth comp. and opium.

The patient made a good recovery, and for several weeks took pills of aloin, strychnine, belladonna, cascara, and physostigma to relieve the atonic condition of the bowel, and an occasional dose of Hunyadi, as he was rather stout and full-blooded.

In July, or four months later, this same patient had a recurrence of the trouble while at the seashore, which began, possibly, with a slight tendency to constipation early, but the first the patient complained of was a severe serous diarrhœa with high temperature—104°. Pulse 128 (normal 58). Severe pain in the ileo-cæcal region. This attack began before I took up my summer practice at Cape May Point, and F. E. Stewart, of Wilmington, was called in.

He made the diagnosis of colliquative diarrhœa, and gave acetate of copper and morphine to check it, and aconite for the fever, but nothing seemed to have any permanent control over the bowels.

Right here in this case, which was my first patient, but his second attack of appendicitis, I learned a very valuable lesson. Here was an obstructed bowel, and nature was trying, by pouring out a very excessive liquid secretion, to flush out the obstruction of foreign matter.

I simply took the cue from nature, and with small, frequently repeated doses of calomel, ipecac, and soda, followed by salines, accomplished the object, and in less than six hours had the satisfaction of seeing the tumor, which had been in the region of the cæcum, deposited in a commode, which the black, very offensive mass nearly filled. In this attack we used hypodermic injections of morphine for pain, and pilocarpine for the high fever and dry skin and tendency to cerebral congestion, as the kidneys were not acting at all freely. There was no vomiting after the first hypodermic, and the patient began at once to take iced champagne and Apollinaris, and soon was able to take milk and other liquid food.

In this case no resort was had to rectal enemata, as the bowels were thoroughly cleared out within six hours after the time I first the patient, and in three or four days he was attending to his regular business. He took the aperient, tonic pills for several months, and was requested to used Hunyadi water freely, and rectal injections, if the symptoms occurred again. He has had no recurrent attacks and no constipation since.

The fourth case, Miss S., occurred at Cape May Point, and was first seen and treated by Dr. F. E. Stewart, Wednesday, August 25, 1891. I wished to speak of this case at the special meeting, September 28, when Dr. Morton read his interesting paper on "The Surgical Treatment of Appendicitis," and wired Dr. Stewart for his diagnosis, and he sent me the following telegram: "Case was obscure. Called Dr. David Stewart in consultation. He said 'appendicitis.'" I am indebted to Dr. F. E. Stewart for kindly furnishing me the history of this case, which I quote from his letter:

"In the case of Miss S., there were pain and tenderness over the abdomen, which, as the case developed, became marked in or over the right iliac fossa. Instead of dorsal decubitus, the patient sat in a chair with her thighs flexed on the abdomen, and could not lie down until relieved by treatment. There was fever; temperature 102°. There was constipation, nausea, and, if I remember correctly, some vomiting, but the latter was not a marked symptom of the case. I did not discover a tumor on abdominal palpation or vaginal touch; but Dr. David Stewart, who saw the case with me on the second day, called my attention to what appeared to be a doughy mass on the right side of the body on examination *per rectum.* I must confess that I would not have discovered said mass except my attention had been called particularly to it, or in other words, I might have had a suspicion of its existence, but it required a finger of more education than mine in feeling for tumors of this nature to make a positive diagnosis.

"The treatment suggested consisted of hot turpentine stupes, opium, and iodide of mercury; under this she seemed to improve.

"From the beginning I recognized the gravity of the case. I advised her to go to the city at once, as proper nursing was out of the question, situated as she was at the Point. Furthermore, I told her if she got worse an operation might become necessary, and then it would be too late to remove her."

I first saw the case Monday, August 31, at 6.30 p.m., and found her extremely weak and nervous from the trip from Cape May Point. The temperature was 103½°; pulse 120; abdomen tense, tympanitic, and extremely sensitive. I found a large tumor in the region of ileo cæcal valve, intense pain and nausea. There was extreme tenderness over the tumor and the abdomen generally, indicating a good deal of general peritonitis.

Miss S. was brought to the city by her sister-in-law, and they went into a house where the furniture had just been piled in. There was not even a bed up, or any convenience for heating water, so, in regard to nursing and environment, she did not improve her condition. When I arrived she was on a bed that had been hastily put up.

The sister in-law, who acted as nurse, got hot water for stupes and enemas, and the patient had the same treatment, practically, as the boy—the first case reported—except that I entrusted the giving of enemata to the nurse, who proved very intelligent and efficient.

When I called the next morning I found the bowels had moved freely several times, and, though the patient had had a restless night, she had slept some. The pain and distention were nearly gone, and the temperature had fallen to 101°. By Wednesday, September 2, the temperature was normal, and the pain was entirely gone. She began sitting up Thursday, without my knowledge, and the next Wednesday she went back to the Point. I believe she had a slight recurrence of the pain, inflammation, and constipation the week after she got home, but they were controlled by injections, stupes, and opium suppositories.

She has enjoyed good health since.

The other two cases of typhlitis, which occurred in my practice within the last year, were quite similar in regard to symptoms and treatment to the others that I have reported in detail, and as I relied only on myself for the diagnosis and treatment, I will not weary you with a repetition of them. I have not aimed to give the latest and most approved treatment from the text-books of the day, but what seemed to me to be indicated and necessary in the emergencies of these cases, when I dared not waste a moment in temporizing or experimenting. It appears to me a serious loss of time to depend solely on external applications to the abdomen, and protiodide of mercury, with belladonna and opium, internally, when we have to deal with a bowel obstructed by hardened accumulation of feces. I believe most cases of obstruction of the bowel, if not due to intussusception or strangulated hernia, are due to the absence of the natural secretion caused by the localized typhlitis, which, if not relieved, becomes a perityphlitis, and then more or less general peritonitis must result. The rational method seems to me to be :

1. To relieve the pain by hypodermic injections.
2 To remove the cause or obstruction by causing, if necessary, pathological or excessive secretion, by giving some saline, which I believe is the best antiphlogistic for the inflamed bowl.
3. To soften the hardened fecal accumulation from below with enemata, solution of Epsom salts in water as hot as can be comfortably borne, to which I add turpentine and oil.

The knee-chest position, with copious enema, favors the distention of the colon up to the seat of the disease.

I have found by experience that the enema to be effective must be given in this position, and that it must remain in the bowel for some time, and in several of my cases it was necessary to repeat the operation three or four times. This plan of treatment has been successful in six cases, which are all that I have treated; but I fully realize that it may fail in the seventh.

I think it is truly in meetings like this that surgeons are broadened medically and physicians surgically—if I may be allowed the phrase. Doctors are only human, as we hear it said of ministers, and as such they are prone to do what they prefer, whether it be surgical or medical, and naturally they do best what they like to do and do oftenest.—A. B. Kirkpatrick, M.D., in *Times and Reg.*

TREATMENT OF DIPHTHERIA BY IRRIGATION WITH SALICYLIC ACID.

Parisot, of Thillot, in Vosges, has published in the *Bulletin Général de Thérapeutique*, an article in which he highly commends, in diphtheria, the employment of irrigations of salicylic acid (1-1000), and affirms that whereas before resorting to this method of treatment the mortality from that disease as occurring in his practice was large—ten cases out of every fourteen in a recent epidemic in which he has relied on the irrigations there were only five fatal cases out of every twenty-four.

The formula which which this writer employs is as follows :—

℞—Acid. salicylic, ... 1 gm.
Water, ... 980 gms.
Alcohol (90%), ... 20 "—M.

Dissolve the salicylic acid in the alcohol, and add the water.

The apparatus which he uses for the irrigation is simply a fountain springe with the "recipient" or "fountain" of tin; this fountain is hung on the wall over the patient; the rubber tubing which is connected with the lower extremity of the fountain, ends in a small glass tube tapering at the point like a dropping-tube. A spring "catch" on some part of the tubing interrupts the current of liquid at will. When the fountain is charged with the solution and ready for action, the head of the child is held by an assistant, the tongue depressed, and the jet directed into the mouth and posterior pharynx with sufficient force to detach and remove the false membranes if they happen to be loose.

Parisot likes best the position in which the child is held with the head forward and a little downward. Where the child is very feeble, it may be supported upon the arm of the assistant with the face turned toward the floor. In this position it may be more difficult to perform the irrigations, but there is more certainty that the liquid will flow back again, and not be swallowed in any quantity.

As for the quantity of the liquid to be used in each irrigation, this must be left to the judgment of the physician; it may not amount to more than three or four ounces each time, but in grave causes the oftener the irrigation is practiced the better. The use of the irrigations does not make unnecessary other remedial measures, such as the frequent administration of stimulants.

Parisot makes some remarks as to the action of salicylic acid on false membranes which, if true, are of great practical importance. He believes he ascertained by experiment that this acid is destructive to diphtheritic formations; in distilled water, the false membrane was simply disaggregated, and this disaggregation took place slowly, while in solutions of different strengths of salicylic acid the exudate disappeared rapidly; at the end of a few minutes, nothing was found but the meshes of the net-work serving for support to the cells of the exudation. The stronger the solution of salicylic acid the more prompt and complete was the disappearance of the exudate.

Parisot, has, moreover, noticed that in diphtheritic throats that have been irrigated with the salicylic solutions, false membranes, when once detached, are reproduced more slowly and imperfectly than when the throat is cleared by any other process; he hence concludes that the mucous membrane is favorably modified by the salicylic acid, and rendered unfit for the reproduction of the diphtheritic patches, and hence for the culture of Loëffler's bacillus.

Salicylic acid in weak solutions has been often employed locally in cases of diphtheritic angina. Berthold, of Dresden, derived benefit from such applications in stomatitis, thrush, and diphtheritic sore throat. Moizard and Bergeron claimed success from the use of this remedy, and Goutheim, out of thirty-one cases treated by swabblings with salicylic solutions, did not lose a patient. D'Espine and Picot have also treated several cases by irrigations with solutions of varying strength, and have been pleased with the results.

Weise was one of the first to advocate the topical use of this acid in diphtheria. His method is to begin treatment by painting the throat with a tolerably strong solution, then he causes a weak solution to be inhaled; half an hour afterward he gives the patient a swallow of wine; in another half-hour, a spoonful of a strong solution of benzoate of soda, then a little more wine, and when two hours comes around the series begins again with swabbing or gargling with the salicylic solution. The result of his success, according to Guelpa, from whose paper we quote, is, that he does not let half an hour during the day elapse (the interval is a little longer during the night) without irrigating or otherwise cleansing the throat of the patient with some efficient antiseptic substance, wine, solution of salicylic acid, or benzoate of soda. To many the profit of so much meddling, either locally or constitutionally, will seem doubtful.—*Coll. and Clin. Rec.*

CHRONIC GASTRITIS TREATED BY LAVAGE.

The man before us is 49 years of age, and was admitted to the Hospital on September 1, 1891, complaining of very severe colicky pains in the abdomen. The pain, which was evidently due to catarrh of the small intestines, was relieved by small doses of epsom salts and laudanum. He continued, however, to complain of epigastric pain, and, upon careful questioning, it became apparent that he had suffered for some months with severe attacks of pain and vomiting. The ordinary methods of treatment were tried; he was placed on bismuth and calomel in small doses; he had daily doses of Carlsbad salt (ʒj to ℥j of hot water); diet was regulated and for several days his food was restricted to peptonized milk. But, in spite of this treatment, he continued to complain of pain, and vomited about once a day. Seeing how utterly futile the above treatment was, it occurred to us that digestion was probably rendered difficult or impossible by an accumulation of mucus in the stomach, and that it would probably be necessary to cleanse the stomach of this before we could hope to attain any marked relief.

Experience has shown that a soft rubber tube can easily be swallowed by a patient who is willing and anxious to co-operate with the physician, and who is not very nervous or irritable. This patient has already swallowed the tube two or three times, and you see, as my resident, Dr. Miller, passes the tube well back on the epiglottis and asks him to swallow it, it passes down the œsophagus naturally and without apparently causing the patient any marked discomfort. As it passes the epiglottis and compresses slightly the posterior portion of the larnyx, a slight choking sensation is generally experienced, but with the descent of the tube, this sensation gradually passes off. The tube is now in the stomach, and Dr. Miller proceeds to pour directly into the stomach, through the funnel at the upper end of the tube, the alkaline solution (about half an ounce of bicarbonate of soda to one quart of water). After the stomach is full, depressing the funnel causes emptying of the stomach by siphonage. This process is gone through with every second or third day.

There is no question that the long continued use of lavage may be injurious, and may tend to impair the function of the peptic glands, but in some cases, the first effects in relieving the patient of distress and enabling him to digest food, which he for weeks has been utterly unable to do, are certainly most encouraging. The patient feels much better after this treatment. For two or three days he has had no food at all by the mouth, and was put entirely upon nutrient enemata consisting of the white of an egg, ℥j of Carnrick's beef peptonoids in powder, and ℥vj of peptonized milk. You know that in introducing food into the bowel, it is important to peptonize it, because the glands of the rectum absorb, but do not, except perhaps in a very feeble degree, peptonize food. The bowel is thoroughly washed out by an enema of soap and water, once a day, about two hours before the nutrient enema is introduced; and, to prevent excessive irritability of the rectum and secure attention of the enema, about one-sixth of a grain of morphine sulphate is added to the enema. Yesterday, he was put upon a small amount of milk. To-day, he tells us that he feels a great deal better. He complains somewhat of hunger, and, I think, he can now digest much larger amounts taken by the mouth. I hope he will gradually be able to live as do other people; however, it is not impossible that there may be, in this case, some obstruction at the pyloric orifice.

We may have here to deal with a case of dilatation of the stomach, brought on by long continued gastric catarrh. Further study of the case will doubtless throw light on this point, but, in any case, we must be prepared to expect a very slow recovery, as this condition is one that has probably been gradually developing for years past, and the whole nutrition of the mucous membrane of the stomach is altered, and it may take months to restore the normal conditions, if, indeed, they can ever be completely restored.—*Med. and Surg. Rep.*

THE PATHOLOGY AND TREATMENT OF PUERPERAL ECLAMPSIA.

It is not long since the subject of puerperal eclampsia was ably discussed before the New York Academy of Medicine, and the views at that time expressed were laid before our readers But it cannot be said that positive conclusions have yet been reached regarding this important topic, and we believe that the discussion on peurperal eclampsia, which took place before the British Medical Association last July, will interest our readers.

Dr. A. L. Galabin, of London, opened the debate. He showed that there was a pretty general uniformity of belief that the convulsions are due to some kind of renal impairment. But he showed that this does not quite solve the problem, since it is necessary to know what causes this renal disease. The experiments of Dr. Blanc were cited as indicating that in the urine of eclamptic patients there is a specific bacillus which when cultivated causes convulsions in some lower animals. Dr. Blanc thinks that this bacillus causes not only the nephritis, but also the convulsions directly. Bearing on this point Dr. Byers cited the investigations of C. Leyden. This observer examined the kidneys of three fatal cases in which there was eclampsia associated with albuminuria, and found "the kidneys large and pale, and cortex yellowish and dull. Miscroscopic examination showed a very extensive loading with fat, especially in the tubli contorti; to some extent also in the glomeruli and in the Malpighian capsules. The fact was distinctly present in large drops." When the kidneys remained for a time in spirits the fat in great part disappeared, and then the organs, on miscroposic examination, appeared to be normal; and accordingly he infers that this fatty condition is not a degeneration, but an infiltration. His view is that such morbid conditions are due to a prolonged arterial anemia. He thinks it also explains the rapid recovery that so frequently follows delivery. Further, he regards causes as the changed conditions of pressure which affect the abdomen or the effluent urinary organs.

Dr. Auvard's view that eclampsia is the result of a "strike" on the part of the organs of elimination, especially the kidneys, no doubt represents a truth, but hardly goes deep enough to be called a scientific explanation.

The same may be said of the theory of Stumpf, that under certain circumstances a nitrogenous substance of a toxemic nature—it may be acetone or a closely allied body—is developed, which in its elimination irritates the kidneys, and so causes a nephritis.

It seems that we do not know as yet more about the pathology of eclampsia than that there is some convulsive poison thrown into the blood, either through renal disease or infection or both.

The subject of therapeutics of eclampsia is more interesting, though here also no great unanimity of opinion was reached. According to Dr. Auvard, the mortality from no treatment at all is only twenty-five per cent. while that following active interference is thirty-one per cent. Nihilist therapeutics should make a note of these figures. Dr. Galabin, however, gives the percentage of mortality at Guy's Hospital under venesection as thirty per cent., while under the use of chloroform it was 20.5 per cent. These figures, however, do not do justice to venesection, since they apply to the period when antisepsis was not used. Dr. Galabin himself favors venesection in certain cases, especially venesection in large amount (forty ounces). Auvard's mortality with venesection was thirty-five per cent. Dr. J. G. Swayne, in an experience with thirty-six cases found venesection is the most efficacious remedy, chloroform and chloral next, and delivery third. Most of the other speakers recommended chloral and chloroform, and venesection in plethoric cases. Little reference was made to the use of morphine or hot baths or pilocarpine, and on the whole we should say that English physicans depended chiefly on the chloral-chloroform treatment. The morphine treatment, which may be considered especially an American one, is evidently but little used.—*Medical Record.*

MEDICAL NOTES.

A mixture of one part each of lactic acid and salicylic acid in eight parts of collodion is recommended as an excellent application to *Corns* and *Warts*, effecting their removal in a short time.

As an *Expectorant Mixture*, *Semaine Medicale* recommends the following :—

R—Apomorphiæ hydrochlorat., gr. j.
Morphiæ sulph., ... gr. ss.
Acid, hydrochloric, dil., . . gtt. x.
Aquæ destillat., . . . f ʒ v .—M.
Sig.—Teaspoonful every two to four hours.

Dr. S. E. Milliken, in a paper on *The Treatment of Hydrocele by Carbolic Acid Injection* (*Annals of Surgery*, October, 1891), concludes that carbolic injection is a safe method for its cure; is practically painless; the patient can attend to business without more than one day's delay ; and the disagreeable effects of an anæsthetic are avoided.

For *Eructations* and belching of gases, caused by atonic or subacute gastric catarrh, the following has been suggested (Dr. H. A. Hare):—

R—Oleoresin capsici, . . gtt. x-xx.
Pancreatin, ... gr. xx.
Zingiberis pulv.,
Carbon. ligni pulv , . āā gr. xl.—M.
Fiant pil xx.
Sig.—One t. d.

Dr. S. E. Solly (*The Climatologist*, September, 1891), in a paper on "*The Personal Equation in the Treatment of Phthisis*," draws the following conclusion from cases under observation : If, as would appear from the comparison made with the other reports of cases treated in high climates, these 141 cases represent the average qualities of such cases, then the truths indicated by these inquiries are that the qualities which most aid the consumptive in recovery are, first, strength ; second, wisdom ; and third equanimity. Therefore, the esentials of the great treatment of phthisis are to preserve and strengthen the physique, enforce prudence, and induce placidity.

The following has been used with success in *Hæmoptysis* (*Gaceta Sanit. de Barcelonia*, in *Cin. Lancet-Clinic.*

R—Essent. terebinth.,
Ol. Amygdalæ., āā gms. 5 (f ʒj ½)
Mucilagin, acaciæ,
Syrup simplic., āā gms. 20 (fʒ v.)
Aquæ destillat . gms.200 (f℥ vij).—M.
A teaspoonful every half hour.

Donovan's solutionof iodide of arsenic and mercury is said to be of material service in the treatment of *Gleet* (*Medical Record*). It is given for this purpose in the dose of ten minims, three times a day. A correspondent writes that he feels justified, so uniform has been his success in controling a chronic eurethral discharge by Donovan's solution, in calling the remedy almost a specific for *Gleet.*

Dr. E. Zimmermann (*Med. News*), states that he has used with signal success the following formula as a topical application to the throat in the treatment of *Malignant Diphtheria* :—

R—Acid, sulphurosi, . . . f℥ ss.
Liquor. potassæ, . . . gtt. xi.
Aquæ calcis, . ad. f℥ iv.
Mix, filter ; keep well corked, in a cool place. To be applied topically to the throat by means of a sponge, probably every hour or two.

Chloride of Methyl spray (*British Medical Journal*), can be employed in all cases where an ether spray is used as a *Local Anæsthetic*, and should be preferred to the latter, since, 1. It induces anæsthesia incomparably more quickly than ether spray. 2. It is uninflammable, and hence can be employed more safely than ether for cauterization, etc. 3. It does not undergo any change from exposure to light or air. 4. It does not irritate mucous membranes, even in children. 5. It is cheaper than ether, since only very small quantities are required.—*Coll. and Clin. Rec.*

Arsenite of Copper.—My attention was first called to the preparation in the issue of the *New York Medical Journal* of August 16, 1890, in the letter of Dr. Branch Clark, who said that he had not lost a patient with cholera infantum since he began its use, and that he used it in cholera infantum, cholera morbus, and dysentery, with uniformly good results.

I will give you briefly some of my experience with the preparation. I would say, first, that in cases of cholera infantum and cholera morbus it very often relieved the vomiting before it relieved the diarrhœa.

The first case I tried it on was that of a bottle-fed child, aged six months. It was taken with fetid diarrhea, the stools being of the "frog-pond" variety. I first gave fractional doses of calomel, followed by bismuth subnitrate and pepsin, without any relief, the diarrhea continuing for two days. I then dissolved a tablet containing one one-hundredth of a grain of the arsenite of copper in four ounces of water, and ordered a teaspoonful to be given every ten minutes for an hour, then every hour until the patient was relieved. I heard nothing of the child for two or three days, and, on inquiry, the parents said they feared the diarrhea had been checked too suddenly, as the child had not had a passage after they began the last medicine until that morning. They had thought of giving it a dose of castor oil, the bowels having been checked so sudendly.

I gave it to another child, aged twenty-two months, that had been given homeopathic medicines for several days without benefit, and was vomiting and purging about every half hour or hour, when I was called. I gave it the same dose in the same way as in the other case. The child did not vomit any more, and the bowels moved only three times in fourteen hours after the first dose was taken ; after that the bowels moved normally.

Another child, aged twenty-one months, has been treated for diarrhea for about two weeks ; the passages had numbered twenty-two in the twenty-four hours preceding the time I first saw it. I gave it the arsenite of copper in the same way, and the child was relieved without further trouble.

A few weeks ago, during one night and the next day, I treated ten severe cases of cholera morbus with the arsenite copper. The youngest patient was a lad of ten, the oldest a man of about sixty-five years. The lad was vomiting and purging violently when I reached him. I tried at first to give him bismuth subnitrate, but it failed to relieve the nausea and vomiting, and he had to rise every few minutes on account of the purging. I then gave him the arsenite of copper in the above-mentioned dose, and his nausea and vomiting were relieved after the first dose; the bowels moved only twice after the first dose was taken.

Another patient, a man aged about fifty, was vomiting and purging very violently ; I gave him arsenite of copper in the above-named dose, and his vomiting was relieved at once and the purging very quickly. This man had weighed himself the evening before, and found his weight to be two hundred and sixteen pounds. The next morning, after the attack of cholera morbus, he again weighed himself and found he had lost seven pounds and a half during the night.

In the other cases I have the arsenite of copper in the same dose alone, with uniformly good results. In all these cases I found the arsenite of copper would relieve the soreness of the bowels in a very few hours. I have tried the remedy in one case of chronic diarrhœa, where all the remedies I had given before failed to give relief. The man was very much emaciated, and since taking the copper arsenite has gained very much in flesh and strength. I gave him the one one-hundredth of a grain at a dose, repeated every three or four hours.

I certainly can bear testimony as to the value of the arsenite of copper in my hands in all cases of acute diarrheal disease.—Wm. J. Bnrd, M. D., *N. Y. Med. Journal.*

INEBRIETY.—In most cases inebriety is a self-limited disease. The drink symptom dies out naturally, or concentrates in some other form of morbid impulse. Any remedies or means used at the time of change will be credited as curative. The cessation of the drink impulse is not followed by full restoration, yet the impression prevails that total abstinence is a sign of cure always. Many pronounced paranoias and diseased persons who have abstained from alcohol, are posing as examples of cure from this or that means or remedy—persons in whom the drink impulse has died away naturally, no matter what remedy may be used. This is evident in the common class of those who sign the pledge, or profess conversion, many times, only to relapse after each occasion. Finally, in apparently the same circumstances, they go through the same formula, and the drink impulse disappears forever.

The real facts are that some organic brain change has taken place, the desire for alcohol ends. Other morbid symptoms may come on, but this disease has subsided or taken on new forms. The bark remedy, the mind cure, hypnotism, or any of the so-called specifics, that are followed by a cessation of a drink impulse, are all examples of this change. Physicians of asylums recognize this, and direct all their efforts to build up and bring the patient back to a normal physiological life, in expectation of the final cessation of the drink symptom and restoration of the organic processes. This result may come on any time, and the object of all treatment is to encourage this, and remove the conditions which seem to provoke the drink symptom.

Drugs or restraint which holds the drink symptom in abeyance are never curative, and when followed by a subsidence of this impulse, it is an accidental conjunction of the natural dying away or change of brain function and growth. When such change occurs after long treatment in the best physiological and hygenic conditions, it is reasonable to suppose that these means have contributed more or less to this end. But when this subsidence follows in conditions opposed to this, and from means inadequate to change or alter organic action, clearly some other forces are at work.

The self-limitation of inebriety, and the natural history and progress of the disease are yet to be written.—*Quarterly Journal of Inebriety.*

The Lactic Acid Treatment of Diarrhœa.—In a number of cases of diarrhœa due to various causes, including phthisis, typhoid fever, erysipelas, and intestinal catarrh, which Dr. Shchegoleff, according to a paper he has published in the *Meditsinskoe Obozrênie*, treated by means of lactic acid, a successful result was obtained in two days in fifteen, in three days in five, and in four days in three. In twelve cases of exanthematous typhus the treatment failed to have effect, but in thirteen others it was successful. The preparation used was an aqueous solution sweetened with syrup. In this form the drug was well tolerated, and no unpleasant symptoms were produced. The quantity of lactic acid given per diem averaged about 115 grains, or little more than half that given by M. Hayem, who first recommended this treatment, and this may perhaps account for some of the failures of the Russian practitioner. Acting on the advice of the latter, Dr. Chernisheff, who has also published an account of his cases, prescribed lactic acid in three cases of acute intestinal catarrh, in six of chronic gastro-intestinal catarrh, also in eight of diarrhœa due to phthisis, and in three of diarrhœa complicating Bright's disease. In all these cases good, sometimes striking, results were obtained. Thus several cases of simple catarrhal diarrhæa were relieved in from two to five days. In six cases of non-specifict diarrhœa in phthisical persons the diarrhœa ceased the day after the commencement of the treatment. In one case of chronic gastro-intestinal catarrh the diarrhœa ceased on the third day from the commencement of the lactic acid treatment, but reappeared when it was stopped. Two days more of the treatment served to effect a more permanent cure. Notwithstanding the observations of MM. Hayem and Lesage on the value of lactic acid in the diarrhœa with green stools of young children (see *The Lancet*, Vol. i. 1887, p. 1149, and Vol. ii. 1887, p. 1020), according to whom lactic acid destroys the bacillus on which the condition depends, this medicament is rarely used, and, indeed, is not generally known to have any effect on infantile or other diarahœa.—*Lancet.*

The Couch—A Room is Only Half Furnished Without One.—A room without a couch of some sort is only half furnished. Life is full of ups and downs, and all that saves the sanity of the mentally jaded and physically exhausted fortune fighter is the periodical good cry, and the momentary loss of consciousness on the upstairs lounge, or the old sofa in the sitting-room. There are times when so many of the things that distract us could be straightened out, and the way made clear, if one only had a long comfortable couch, on whose soft bosom he could throw himself, boots and brains, stretch his weary frame, unmindful of tidies and tapestry, close his tired eyes, relax the tension of his muscles, and give his harassed mind a chance. Ten minutes of this soothing narcotic, when the head throbs, the soul yearns for endless, dreamless, eternal rest, would make the vision clear, the nerves steady, the heart light, and the star of hope shine again.

There isn't a doubt that the longing to die is mistaken for the need of a nap. Instead of the immortality of the soul, business men and working women want regular and systematic doses of dozing—and after a mossy bank in the shade of an old oak, that succeeding Junes have converted into a tenement of song birds, there is nothing that can approach a big sofa, or a low, long couch placed in a corner, where tired nature can turn her face to the wall and sleep and doze away the gloom.—*Med. and Surg. Rep.*

Morality According to Occupation.—At the recent Congress of Hygiene and Demography, Mr. Ogle (*Med. News*) presented statistics as to the comparative mortality among those between twenty-five and sixty-five years old engaged in the various occupations in England. The death-rate among clergyman being the least, this was taken as a standard of comparison. The following table presents the comparative mortality:

Clergyman	100	Wool-workers	186
Gardeners	108	Armorers	186
Farmers	114	Tailors	189
Husbandmen	126	Hatters	192
Papermakers	129	Printers	193
Grocers	139	Cotton-workers	196
Fishermen	143	Clerks	199
Cabinetmakers	148	Physicians	202
Lawyers	152	Quarrymen	202
Brushmakers	152	Bookbinders	210
Mechanics	155	Butchers	211
Tradesmen	158	Glassmakers	214
Woolen-drapers	159	Plumbers, painters, etc.	216
Milliners	160	Cutlers	229
Shoemakers	166	Brewers	245
Commercial travelers	171	Ominbus-drivers	267
Bakers	172	Wine-merchants	274
Millers	172	Bass-singers	300
Upholsterers	173	Potters	314
Masons	174	Miners	331
Smiths	175	Hotel-waiters	397
Laborers	185		

—*Cincinnati Lancet-Clinic.*

The Popular Physician.—He is a highly entertaining sort of being, is the gentleman we are about to introduce. Many of our readers, no doubt, may have met and conversed with him, and all must have heard of his fame. He is altogether fascinating and unique, yet withal *so* condescending. He is one of those men who will enter, heart and soul, into everything, and that without being invited, and he *knows* a little about *nearly* everything! Nothing is above his notice and very little is beneath it. He is versatile, humorous and entertaining, but above all popular.

His name is constantly before the public in some connection or other, and it is a crisp, catchy sort of a name, a double name generally, and having perhaps an alliterative sound about it, a name, in fact, that sticks in the public mind and looks imposing at the bottom of a "Letter to the Editor," in a lay newspaper. And that is where the P. P. is so agreeable and condescending, he does not disdain to write to the papers. No matter what the subject, so long as he can on any pretext give to it a quasi-medical or scientific aspect, he is very much all there. He has a theory and he gives it to the public for nothing! He will even give "advice gratis" on occasion, and tell us all about the therapeutic treatment of some epidemic or other fashionable disease. He is, indeed, the very oracle of popular medicine; but that is not all, as we said before, he is up in *everything*!

Is it an assassin who has long evaded the police? Our friend is ready with his theory, and springs it on the delighted editor of an evening "ha'p'orth." Is it the appearance of a new music-hall "phenomenon?" He turns up in some other quarter with a long-winded original explanation. Is there a new soap out? He approves of it. Has there been another pet sensation murder? It has some psychological interest or significance, which has occurred only to his broad and versatile intellect, and has "quite escaped the notice of your readers;" there was some vague motive for the crime, perhaps, and he alone has discovered it; or the perpetrator is a lunatic, poor wretch, and the P. P. will tell us how he has proved this conclusively, without having even seen the accused.

There is no limit to his condescension and good nature. He will sometimes speak at a public meeting, and he is quite sure to meet with an enthusiastic welcome. It is rumored that he is not unwilling to sit on the County Council, and we devoutly hope that he may get there!

And then there is his practice, which is necessarily a large one. The old ladies just dote upon him, and he doesn't seem to mind it the least bit. Wherever he is called in there is the universally expressed opinion that he is such a "*nice doctor*;" you seldom hear any other expression made use of, and this one just describes him, he is nothing if not "nice." He has acquired considerable knowledge of veterinary surgery and lap-dogs, and he has been known to betray a lurking tendency towards homœopathy. It need hardly be told that this gentleman is possessed of a considerable income, and an entire pew in his parish church. He has a wife—a lady of brilliant conversational power—who knows a good deal about his profession, and all about the numerous smart patients her husband goes to visit; she is naïvely communicative on these matters. Needless to say she is asked out everywhere, and she goes.—C. K. J., in *Hosp. Gaz.*

THE ORIGIN OF CHOREA.—Chorea bears in many respects a great resemblance, in its onset, course, and general characters, to the group of infective diseases. In man it most frequently follows or accompanies acute articular rheumatism; it generally occurs in children aged from four to twelve years, which is the age at which there seems to be a special predisposition to infective diseases; it generally runs a definite course, and even without treatment tends to disappear after a certain period of time. These facts led Dr. Pianese to make an examination of the disease from a bacteriological point of view, and he now publishes (*Riforma Medica*, July 14th, 1891). a preliminary communcation on the subject. After seven months' work, he has come to the following conclusions: (1) From the cervical portion of the cord of a patient dead of chorea he has succeeded in isolating a bacillus, which grows on the usual culture media between 20° and 38° C., develops gas when cultivated in gelatine, grows on bread paste, shows slow movements when grown in a hanging drop, forms spores, and can be stained well with carbolic-fuchsine. (2) Inoculation of this bacillus into guinea pigs, dogs and rabbits, whether subcutaneous, intraperitoneal, or intravenous, always gave negative results. (3) Inoculation under the dura mater, either of the cord or of the sciatic nerve in six dogs and thirteen rabbits gave a positive result. Inoculations into the nasal mucous membrane of four guinea pigs were also successful. (4) Inoculations into the anterior chamber of the eye in rabbits succeeded in two out of three cases. (5) In the successful cases the symptoms produced were as follows: A tremor, sometimes general and at other times confined to special groups of muscles, particularly those of the back and shoulder; the animals became extremely irritable, even to trifling disturbance, and cried out when touched along the vertebral column. These phenomena generally appeared twenty-four hours after inoculation, and became more marked in the following days; there next appeared contracture in one or other of the limbs, and the gait became more and more uncertain and difficult; the animals got very thin and generally died on the fourth day. Guinea pigs inoculated in the nasal mucous membrane generally died in twenty-four to thirty-six hours; the dogs and rabbits inoculated in the sciatic, however, recovered completely after presenting during twenty to thirty days a general tremor, with contractures and progressive wasting. (6) In the animals which died after inoculation, bacilli were found only in the brain, cord and nerves, and cultures could be obtained from these parts. (7) The ganglion cells, especithose of the anterior cornua of the cord showed changes in their protoplasm quite similar to those met with in cases of chorea. (8) In association with the red blood corpuscles of the vessels of the spinal cord in a choreic patient he found bodies clearly bacillary in nature, some exactly similar to those of the cultures, others apparently being involutions forms. Dr. Pianese is continuing his researches, and hopes soon to be able to bring forward further confirmatory evidence as to the real bacillary nature of chorea.—*Br. Med Jour.*

Cocaine in Vomiting.—M. W. Everson, M.D., in *College and Clinical Record*, calls the attention to the special merit of cocaine in nausea, particularly in that of pregnancy, gastric ulcer and cancer.

"In vomiting of pregnancy $\frac{1}{8}$ to $\frac{1}{4}$ grain three times daily will generally be sufficient. Cocaine will be found of value where other remedies fail. I have found it successful in those cases of vomiting of pregnancy in which the so-called specifics, oxalate of cerium, etc., have failed. In gastric cancer it will often arrest the vomiting for days at a time, thus giving the stomach rest and allowing more perfect attempts at nutrition. In every case in which it was used the vomiting and pain were noticeably lessened, and the patient was made vastly more comfortable. But, regardless of the above special diseases, cocaine is of use in vomiting from any cause; and there are many cases attended by vomiting met with by the practitioner of medicine for which no cause can be immediately assigned. In these cases its action is manifested at once, and after the first dose the vomiting usually ceases. The most desirable way to administer cocaine is in pill form, but it may be given in solution when a proper vehicle is added. Cocaine can be given in suitable doses without fear of depression; indeed, it can be given to a double advantage where a weak circulation exists, as it is to some extent a circulatory stimulant. It is also of use in vomiting of enterocolitis of children, a disease which is so frequent in our large cities during the heated term, and in which vomiting is so prominent a symptom. In the latter affection it is best given in combination with bismuth. To a child two years of age I give $\frac{1}{16}$ grain of the hydrochlorate at a dose, and repeat it every few hours, *pro re nata.*"—*Pharm. Record.*

The Action of Chloral Hydrate on the Kidneys.—Since the publication of Liebriech's monograph on chloral, there has been no study of the action of this remedy on the kidneys sufficient to explain results which had been sometimes noted to follow the use of this valuable hypnotic. Dr. Cavazzini has, however, recently made some experiments in this connection on dogs and guinea pigs, and he has found that when injected into the abdominal cavity, chloral hydrate produces marked irritation of the secreting cells of the kidneys. Even after the first injection it causes visible granular degeneration of the epithelium of the convoluted tubules, while after prolonged administration the epithelium of all renal tubules, undergoes degeneration, with the single exception of that of the straight tubes.

In more severe cases it produces swelling of all the renal epithelium, with other symptoms of acute parenchymatous nephritis, although the Malpighian glomeruli are never affected, nor is there ever any implication of the interstitial connective tissue.

The intensity of this destructive process depends partly upon the duration of the poisoning, partly also upon the individual's susceptibility. If the remedy is introduced through the stomach, it may likewise produce degenerative changes, but not to as marked a degree or as rapidly as when it is injected into the peritoneal cavity. The lesions thus described of the renal tissue are stated by the author to disappear after suspension of the use of this drug. Nevertheless, the author states that in none of the cases in which the post-mortem examination proved this condition to be present, did he ever during life succeed in detecting any albuminuria, a fact which will, perhaps, explain the great scarcity of clinical observation pointing to the danger of chloral from its action on the kidneys. The author's observations, however, show that the kidneys are liable to marked disorganization from the action of chloral, and should serve to indicate the necessity for great caution in the employment of chloral in cases where the kidneys are already affected.—*Therapeutic Gazette.*

The Race for New Drugs.—There appeared in *The Medical News* of November 7th an able and vigorous editorial article based upon the report of a case of poisoning by "antikamnia," calling attention to the dangers of prescribing pharmaceutical products the composition of which is unknown, and roundly denouncing manufacturers for foisting such goods upon the profession.

But the substance named is only one of hundreds of so-called new remedies, the manufacturers from the sale of which, with the aid of the medical fession, are waxing rich. These preparations effusively lauded to physicians by their introducers, and thrust upon our notice in every conceivable way—and it is rarely the case that the extravagant and often ridiculous claims made for them are not fortified by apparently reputable medical authority. This appears to be, in fact, a *sine qua non* to "success" in the new venture.

For the real cause of this evil, however, it seems to me that we need not go so far from home as to the chemist or to the pharmacologist. It is but incidental to a far greater evil that pervades the medical profession and for which physicians themselves are responsible. I refer to the craze for therapeutic novelties — the mad rush for new remedies that has been observable for the last few years.

It is a deplorable fact that manufacturers are not more eager to sell their new, fancifully named products than physicians are to prescribe them. Scientific conservatism has been flung to the winds and a spirit of reckless experimentation seems to have taken possession of the profession. The pharmacologists and chemists are merely profiting by the occasion. The credulity and the recklessness of physicians means dollars and cents to the manufacturers. As between the latter and the physicians who prescribe their nostrums and by whose encouragement and patronage they thrive, the manufacturers are the less culpable.

It is indeed "time to speak plainly and act courageously." It is time for such leaders in true medical progress as *The News* to call a halt upon the present reckless, indiscriminate, and dangerous practice of prescribing new and untried pharmaceutical products. It is not because of this tendency, but in spite of it, the real advance in modern therapeutics has been made. No "new remedy" should find a place in the armamentarium of the private practitioner until its physiological and therapeutic actions have been carefully studied and its value proved by observers of unquestioned competency.—George Emerson Shuey, M D., in *Med. News.*

Pistol Shot Wound of the Brain.—Joseph Ransohoff, M.D.—*The Cincinnati Lancet Clinic.* A young man, æt. 20, fired a twenty-two caliber ball into his left temple, and fell to the ground pale and excited, but conscious. The wound, two inches behind the external angular process and an inch above the zygoma, was filled with a blood clot; no oozing; pulse and respiration normal; pupils active and equal. Paraphasia was present. An antiseptic dressing was applied for the night, but by morning his condition had changed for the worse, delirium setting in, pulse hard and frequent; temperature 101°.

An exploratory trehining was made by enlarging the entrance of the wound and exposing the irregular opening in the skull which showed the edges blackened, and roughened. With a half-inch trephine and rongeur the opening was increased to nearly an inch, freely exposing the small, blackened aperture in the dura. The head now being placed on the right side, and an examination being made with an acorn-tipped hollow wire bougie, it revealed the fact that the bullet had followed an inward course, deviating downward and slightly forward. There were two spiculæ of bone at the depth of an inch and a half, which were removed. A bony surface arrested the course of the probe at the depth of two inches, but nothing was seen or felt of the ball. But slight hæmorrhage was met with which was easily controlled. A drainage tube was carried into the depth of the sinus, and the external wound closed by sutures and loosely packed with sterlized gauze about the tube.

The first dressing with drainage tube was not removed for eight days, and after second dressing the wound healed entirely. The delirium did not return at any time, temperature was not above normal, and the process of wound repair was without a flaw. Five months afterward the patient was in perfect health and resumed work.

Tea-Tippling.—In an editorial on tea-tippling the *Lancet* says: We desire to assist in impressing upon women especially the fact that the immoderate use of their favorite beverage is fraught with considerable danger to health, and that this is especially true of those who lead for the most part an in-door life. Too often, unfortunately, conviction that the habit is injurious comes only after the break down, and the harm which has been done takes a good deal of undoing. It is idle to argue that Australian shepherds or half-savage Tartars drink tea in immoderate quantities, and are none the worse for it. Their mode of life enables them to do many things—we shall not say with impunity—which town dwellers cannot do, and we are convinced that no one living for the most part an in-door city life can continue to indulge freely in tea five or six times a day without suffering for it in the end. Whether or not "envy, malice, and all uncharitableness" are, as some assert, productive of indigestion, there is no doubt that excessive tea-drinking is, and for our own part we are inclined to think that indigestion is at least as often the parent as it is the child of the vices which have been mentioned.—*Med. Rec.*

Drink and the Death Rate.—The relation of drink consumption to the death rate formed the subject of a communication recently made to the Manchester Medico-Ethical Association by Mr. Meacham, district medical officer. The reporter recorded it as his experience of thirty years of work among all classes of the people, that a very large percentage of disease is directly attributable to the influence of alcohol. In congested parts of the city this was especially the case, and he urged on the association the duty that rested on it, of doing all that lay in its power to aid the corporation of Manchester in the efforts that were being made to promote temperance principles among the masses. Mr. Meachan attributed 21 per cent of pauperism met with to the hereditary influences resulting from drink excesses. He had compared the children of drunkards with those of temperate parents and found that the latter possessed vast advantages over the former in respect to healthfulness and freedom from diseases.—*Med. Press and Circular*.

Birth of a Viable Child at Six Months and a Half.—The woman was thirty-three years of age, had been married eleven years, and had had four children at term and one miscarriage. She had been under the speaker's care for chronic pelvic peritonitis, which fact had given him opportunities for observation in the case that he might not otherwise have had. On July 5, 1890, she menstruated as usual. On August 6th there was a scanty flow for three days. During the third week in August, changes were noticed in the uterus characteristic of the earlier weeks of pregnancy. The woman stated that conception must have occurred on July 13th, denying its possibility before that date. On January 4, 1891, while she was working a sewing machine, there was a sudden and profuse hemorrhage. All attempts to prevent labor were futile, and on February 3rd she was delivered of a small male child weighing two pounds and two ounces. The child cried at once, and, wrapping it up warmly, the speaker waited for some five minutes till pulsation in the cord had ceased before separating the child from its mother. The placenta gave some trouble, and there was found attached to it an independent lobule. The bones of the child's skull were soft and overlapping. The testes had not descended, and the finger nails were only just showing. The infant was wrapped in wool and put in a basket, which was placed near a fire kept continually burning. At first the child was fed with milk and water from a spoon every two hours, and subsequently from the breast. It has since continued to thrive in every respect. The date at which the child was born and the general condition of its development would indicate the period of gestation at six months and a half.—Dr. H. Collyer in *N. Y. Med. Jour.*

Dentition and Infantile Disease.—Brothers (*Archives of Pediatrics*), maintains that dentition is rarely or never a cause of death. He believes that dentition may be precocious or retarded in otherwise healthy children or in families. In the majority of healthy, breast-fed infants the eruption of the first teeth begins at six and a half months and is completed at thirty months. In children brought up on a mixed or artificial diet, primary as well as secondary dentition is distinctly retarded. Congenital disease—tuberculosis, syphilis, endocarditis—seems to retard dentition. Rhachitis has a pronounced retarding influence upon dentition. Scrofulosis seems to accelerate the eruption of the first teeth, but does not affect subsequent dentition. In cases of defective cerebral development, as in idiocy, the whole process of dentition is retarded. Chronic disease retards the eruption of the first teeth, but does not influence subsequent dentition. In marantic children, primary dentition is precocious, but secondary dentition is delayed. Epileptics seem to have their first teeth early.—*Med. Prog.*

Cocaine in Gastralgia.—Dr. G. W Steeves (*Lancet*) says he believes cocaine to have special efficacy in certain cases of gastralgia. In two instances, one of which was accompanied by intense gastric irritability (all food and liquid being immediately vomited), the exhibition of the drug was followed by almost immediate relief. Other treatment by morphine, belladonna, etc., had been previously tried, with no beneficial results. One case was that of a hysterical young lady, who, in addition to excessive gastric pain and epigastric tenderness, suffered from a general condition of hyperæsthesia. This patient had been under observation for ten days with no improvement whatever, but after the cocaine had been administered for twenty-four hours the pain was subdued, and remained so. She has not had an attack since, although previously to this similar seizures had been periodical, especially on the approach of menstruation. The hydrochlorate of cocaine was given internally in doses of ¼ grain every four hours ; or more frequently if the gastric pain was excessive.

A medical man, practising not far from the Middlesex Hospital, who finds his practice much injured by the competition of special hospitals, writes:

"Can such an institution as the Hospital for Diseases of the Heart be necessary? So many hospitals for paralysis cannot be necessary. The Hospital for Paralysis, in Queen Square, might remain, as it is a good clinique, but let it be safeguarded and not give indiscriminate advice, and, say, attach it to the general hospitals as a branch or department where certain students, according to advancement, would be compelled to attend the practice. Again, can a special hospital for diseases of the hip be necessary? Provision ought to be made in general hospitals for these cases, although they may be long or chronic cases." The writer of the above should join the General Practitioners' Alliance, which has been formed to deal with the evils he complains of.—*Hosp. Gaz.*

Topical application for Diphtheria. — Dr. Zimmerman, *Med. News*, suggests the following as having been signally successful in his hands :

℞.—Acid sulphurosi . . . . f℥ss.
Liquor potass . . . . gtt xl.
Aquæ calcis . . . . ad f ℥iv.

Mix, filter ; keep well corked, in a cool place. To be applied topically to the throat by means of a sponge, probably every hour or two.

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MEDICAL EDUCATION IN ONTARIO.

It has been Ontario's wise policy for many years to give public aid very liberally for purposes of general education, from the Public School up to the University—and even to Agricultural Colleges, and to the teaching of such branches of science as form part of a general education. But for forty years in Ontario the principle has been asserted and carried out, that it is no part of the duty of the State to use public funds of any kind, in educating students for special professions, such as medicine or law, any more than for any other calling by which people earn their living. For this reason, the trifling equal grants given to each of our medical colleges for some years, by the late Attorney-General, J. Sandfield Macdonald, were entirely withdrawn, and have never been restored. Long ago, the medical faculty of the University of Toronto, which was maintained at the public expense, and was the only medical faculty in the province so maintained, was discontinued solely on this ground, only two members of the old parliament of Canada voting for its retention. And since the recent restoration of a state-subsidized medical faculty to the same institution,—it has been proved to a demonstration, just as it was in former days, "that private enterprise without any public aid whatever, is abundantly able to supply as many thoroughly educated young doctors and lawyers as the province requires—besides furnishing in the case of the doctors, a very considerable number, who from preference go abroad to exercise their calling." It was also long ago proved, and it is proved no less decisively to-day, that the quality of the professional men educated by a medical faculty maintained in part at the public expense, is no better, nor do they take any higher standing than others, towards whose education not one fraction of public money has been contributed. To-day, and for years past, the standing of the candidates from our various medical colleges, at the examinations of the Examining Boards in Great Britain, and at the examinations of the Medical Council, which all who intend residing in Ontario have to take, proclaims this clearly, over the whole land. Can there be any more convincing evidence than this, of the extreme impolicy, as well as the gross injustice, of subsidizing one out of the six medical teaching faculties, which, including the colleges for women, exist in Ontario? Our province is inhabited by sensible people, and has a sensible, level-headed medical profession who can see and judge of such matters for themselves, and if the future is to be judged of by the past, the injustice of which we loudly complain, will be remedied before long.

In 1887, as soon as the medical faculty was restored, but not before, the new Biological buildings in the Park, were hurried on to completion. On these buildings with their equipment, many thousands of dollars of public money were spent. During their erection and since their completion, it was given out, that they were intended for the sole use of the Arts Department, which the public rightly regard as the essential part, the back bone of the university. If this department required accommodation for its science teaching, it is right that it should have all it needs, without stint, but every one knows that the provision made, far exceeds any possible needs of the not very many Arts students who take the science course, and, as a matter of fact, from the moment these buildings were opened till now, they have been, and they continue to be, used largely for medical teaching purposes—indeed they were so advertised in the official calendar—and as such they are on every occasion being exhibited to medical students, to visitors, and to the public.

On the 1st of October, 1890, at a meeting in connection with the opening of the University of Toronto Medical College for session 1890-91, which was held in these new biological buildings, Sir Daniel Wilson, in his address, referred to their cost and to the purposes for which the buildings had been erected and equipped so clearly as to leave nothing to be desired on that point. The *Toronto World*, of Oct. 2nd, 1890, reports Sir Daniel Wilson as saying that "Toronto University had spent some $130,000 on these magnificent buildings to give medical students the best equipped school in Europe or America." We were present on the occasion, and well remember the boasting style of this address, and his mention of a very large amount of money as having been laid out in the way stated. The speaker must surely have felt that the spending of all this public money in such a way was unjust to the general public and to all Ontario's other incorporated and entirely self-sustaining medical colleges, which have built and equipped at their own cost, and very thoroughly too, all the buildings they require, and with such good results that they have gone on steadily prospering in spite of this lavish use of public funds to crush or cripple them. Does the Ontario public, or the medical profession in our province, wish to have public, that is, their own money, used in this unfair way? Happily the medical colleges treated with such gross injustice have not suffered from it—its effect has been to turn the tide of public and professional sympathy in their favor more largely than ever before in their history. Their halls are well filled with young men who, with their friends all over the country, are determined to have the injustice they complain of brought to an end as soon as possible. In view of the facts stated, and of others yet to be referred to, is it not extraordinary that when the restoration of the University Medical Faculty was first mooted, it was distinctly and repeatedly stated, inside and outside the Legislature, by responsible parties in very high position, that it would be entirely self-sustaining and would not cost the country or the University a single dollar?

On the occasion of the disastrous fire of February, 1890, the Legislature at once, and without a dissentient vote, voiced the feeling of the country by ordering the sum of $160,000 to be given to the University to aid in restoring the burned buildings. At the same time, by the friends of the University all over the country, many liberal donations were given spontaneously. But at this very time, or almost immediately afterwards, another extensive and very costly building was contracted for, and pushed as rapidly forward as possible.

This is known, since the issue of the Hon. Ed. Blake's recent University Finance Committee's Report, Nov. 1891, as building No. II., in contradistinction to the main Biological Building, which is styled Building No. 1. It adjoins the main Biological Department. Completed only a few months ago, this building was manifestly intended for medical teaching purposes, although during its construction this was a carefully-kept secret. It is, to all intents and purposes, a medical school building, including dissecting rooms above, vat rooms for preserving anatomical material below, with class rooms for other medical work between. It may, perhaps, be used for a certain amount of arts teaching; but the official calendar for Session 1891–92 announces that all the teaching of the University medical students of the first and second years will be done in it. This very costly building was also paid for entirely out of the funds of the University, that is, with public money.

In the Finance Committee's Report, above referred to, the cost of Building No. II, is placed at or upwards of $71,000. It is said that the outlay on buildings and equipments, largely for medical teaching purposes, is one way or another, not far below $145,000. It is admitted that the Government, as such, knew nothing of the purposes for which this last building was intended, till some months ago, when it was examined after its completion. Most unquestionably the Legislature of Ontario, which voted $160,000 to aid in repairing the damage done by the fire, had no idea that the most of this sum would be spent in a way never for a moment intended, viz., on dissecting rooms, vat rooms, planned for the study of human anatomy, and for other class rooms, chiefly for the medical students attending this one college, while our other five medical colleges provide and equip every building they require; wholly at their own cost, and impart as good a medical education as is given in any part of the empire, without costing the province, or any one of our public funds, so much as one cent.

Why should our Ontario Government have permitted these great and, to the other medical colleges, most unjust outlays; most unjust, too, to the Arts Department of the University, which needs all the money it can get from every quarter, and even more, to meet its large and ever increasing necessities. The public, the other medical colleges, and the Legislature of Ontario, ever since the session of 1887, have been solemnly and repeatedly assured by the highest educational authority, speaking on behalf of the Government, that the carrying out of the Medical Faculty restoration scheme would not involve the spending of a dollar of University or any other public money.

Yet we find that by far the greater part of the generous legislative gift of $160,000 has been lavishly spent in a way which was never authorized, nor even dreamt of by the House, which voted the money, or by the country to which the money so voted belonged. The precise outlay cannot be got at, but the character of the buildings and the uses to which they are put, and the fact that the public paid for them, cannot be questioned.

As a further necessary result of the present unfair policy, the self-sustaining colleges find the Provincial University, not as they might naturally expect in an institution which, as part of the public, they help to maintain, a friendly co-worker with each of them, but an active competitor for every student, competing unfairly, too, on account of the Provincial institution being so largely subsidized out of the public funds. Only last spring a further very bold movement was made public, when an influential committee of the Senate was appointed to ask the Government to sanction the endowment, at the public cost, of three chairs in the restored medical faculty. This came to nothing, for it was at once and very strongly protested against. Several influential members of the Senate, too, were known to disapprove of the suggestion, yet only the other day, certain speakers at a University public gathering referred to further action on this very matter, as being "merely postponed" on account of the losses caused by the late fire, thus plainly foreshadowing their intention of again, in due time, pressing this preposterous claim on the Government.

In the case of these three chairs sought to be endowed, at the expense of the public in this already largely subsidized University medical college, it is right that the Government and the public should know, that in the self-sustaining colleges, each of them is filled by a professor, who, in every instance, is fully competent to teach the subject committed to his care with thoroughness. Besides this, all expenses connected with these chairs, including the payment of the professors, are, as they should be, borne by the fees of the students who attend the respective classes.

Had the Government, openly and above board, avowed its intention to swamp or cripple our independent medical colleges, which have done, and are doing, such excellent work, the course which has been pursued is exactly what might have been expected. Indeed nothing in the direction of injuring them, which could have been at all safely attempted, has been left undone. But, happily, the effect produced in the country by this strange policy, has been one which had apparently not been anticipated. A very strong feeling of sympathy has everywhere sprung up in favor of the independent colleges, to which not merely scant justice, but the grossest of injustice has been done by the Government which chartered them, and from which they naturally expected at least "a fair field for all, with special favors for none." This sympathy has greatly sustained and encouraged them, for it is manifestly based on a very large share of the confidence of the public and of the profession. These institutions continue to work most successfully with large classes, and intend to work even harder in future. To the Government and to the Legislature of the province we continue to look for redress, and we believe our expectations will not be disappointed for any long time, for the profession and the public largely and very strongly hold views on this subject identical with those expressed in this article.

The term for which the medical faculty appointments in the University were made in 1887 (five years) will shortly expire. And it is perfectly possible, exceedingly desirable, and well within the power of the Government, to reconstruct this faculty in some way which shall be quite fair instead of grossly unfair to all the other medical colleges of the province. And as a foundation principle let it be clearly laid down that every teaching medical body in Ontario shall provide its own buildings and equipments free of even a dollar's cost to any public fund. The law faculty of the University, as it at present exists, would be an excellent model on which to reconstruct the medical faculty. It costs nothing, either for buildings, or equipment. Its professors are not salaried—and what teaching they do is of so general a character as to be interesting to any one who wishes to be considered well educated.

The law faculty does not compete at all with the self-sustaining law school connected with the Law Society. And it is a question that presses for an answer why Government should ever have consented to make the medical faculty the very opposite of all this—very costly to the public and to the University—and actively competing with the excellent medical colleges which admittedly teach medicine quite as well and cost the public nothing. And it would be very easy to use the buildings recently erected at such great publi ccost to aid in carrying on the University Arts and Science Departments with full success.

The teachers of the various branches of the Science Department being entirely paid out of the general public funds of the University, which are public funds, it is *most objectionble* that they should form a part, or be advertised as forming a part, of any *one* medical faculty whether that of the University itself or any other. The adoption of this principle is called for by the Provincial University The mere charging a sum as rent against the medical faculty of the University, as is now said to be proposed, or arranged for, fractional as it is, in proportion to the great cost of the buildings, will not meet the case. Many of the best friends of the University of Toronto are of the opinion —and their number is fast increasing—that were she to apply her entire energies and resources to develop her Arts and Science Departments, she would find *ample,*and *to the country, most profitable work* for any number of coming years, and work regarding which no complaints of injustice would be made. But in a province like ours, where there is a sufficient number of excellent medical colleges in operation and all of them have been so long self-sustaining, there should be no subsidizing now, of any one them, directly or indirectly.

If there must be a medical faculty in Toronto University, it should certainly be as purely and squarely self-supporting in every respect, as all the other medical colleges are, and in that case, without interfering with the autonomy, or the legal rights of any of these colleges, our Provincial University might ally herself by special affiliation and be friendly with them all, instead of occupying as now the undignified and unprovincial position of being a keen and a most unfair, because a subsidized, competitor with them for every student—and this, notwithstanding the fact, that some of these colleges have been for many years affiliated with her. A just and liberal policy of this kind would attract many students for graduation in medicine from all the teaching colleges, who are now, as is their undoubted right, being educated in the institutions of their choice, and who under present circumstances would not think of such a thing. But it is the Government which can and should, as speedily as may be, bring about such changes as will forever put an end to unfairness, and establish what is just and right on a firm basis—a basis which shall be equally just to each of our medical colleges, of which Ontario and her Government have good reason to be proud.

There is still another and a very glaring abuse, long since pointed out, but still entirely uncorrected. The overwhelming evidence of figures proves that State paid University professors are, and have been, ever since 1887, earning a large yearly bonus for the medical faculty of the University, which bonus, the fees of every medical student, wherever he may come from, goes to swell, while the respective medical faculties of all the other medical colleges get nothing but what they themselves earn. This abuse, is as follows: In the University of Toronto, under a special University Statute, approved of by the Government before it could come in force, all fees paid by medical students go into the funds of the "medical faculty," and not into the "General Funds" of the University. Since 1887 Physiology, General Chemistry, Practical Chemistry, Biology, including Botany and Zoology, have been taught to the medical students of the University of Toronto by professors and other teachers, whose salaries are wholly paid out of the "General Funds" of the University.

These medical students pay very much the same fees for this teaching, as are charged in all other medical colleges in Ontario, in which colleges however, every teacher is paid solely out of the fees he individually earns.

The fees paid by every 1st year's student for the branches above named amount to $34 ,and the amount paid by each 2nd year's student for this teaching, done wholly by State paid teaching, is $37.

Suppose there are 60 students in each of these year's, and this is a fair average; 60 x 34 will give $2040, received in fees from 1st year's men, 60 x 37 will give $2220, received from 2nd year's men, making a grand bonus of $4260 from the men of these two years, which goes into the "Medical Fund." The fees, therefore, which University of Toronto medical students pay for the branches named, do not go, as they should, into the general funds of the University, to help to pay the salaries of those who earn them, but under the statute above referred, are paid into the "Medical Faculty Fund," which fund is distributed (less expenses) amongst the teachers of purely medical subjects. Thus certain University of Toronto Arts professors, earn this large amount of medical students' fees, which goes, not into the general fund of the University—the needs of which are great, but to be distributed in a proportion fixed by University Statute, to various members of the medical faculty who do not earn any part of it, and who do not teach the subjects for which it is paid. For the statute, and even the exact proportion given to each teacher, and the list of names of those who share these fees, see Ontario Sessional Papers, 1887, No. 52, page 110.

This volume is in the library of the legislature and may be consulted by any one who wishes to do so. In the list of names in this statute, those of the State paid gentlemen who earn the fees referred to are not given, but the names of the medical teachers who receive their respective shares of this money, which they do not earn, will be found. Till now, Feb., 1892, this glaring abuse, long since so clearly proved, that no denial of its existence has come or can come from any quarter, remains unrectified. It is a great wrong—first to the Arts Department of the University itself, which should have this money earned by University paid-teachers placed to her credit—but it is a far greater wrong to our other five chartered medical colleges, which ask no public aid and receive none.

The teaching medical faculty was restored to the University under the impression that the interests of the provincial institution would be thereby promoted, and those prominent university officials who favored its restoration did so on this ground. But we submit as a principle that invariably holds good, that any change of this kind, made in such a way as to be unsound in principle on the very face of it, and most unfair to every other medical college in the province, could not, in the nature of things, prove ultimately beneficial, or indeed otherwise than most injurious to any institution whose friends sought, in this mistaken way, to do it service. The press is speaking out very clearly on this subject, and there is no time to lose in setting matters right. A Hamilton paper of recent date says: "This (*i. e.* the present arrangement) is not only unfair to the medical schools which receive no public assistance, but it is unfair to the public who pay the taxes." The Toronto *Week* says: "That the Legislature of Ontario either intended or would consent that any portion of the public funds should be used for the pupose of aiding in the work of medical education proper, thus bringing the Provincial Uuiversity into competition with the self-supporting colleges which are doing the same work, and doing it well, we cannot for a moment suppose." A late Amherstburg paper says: "A liberal education is provided for all in Ontario, but it now looks as if our doctors are to be educated by the State, and if doctors, why not business men, telegraph operators, lawyers, mechanics, artizans and laborers?" A recent Kingston paper says: "It is neither fair to the self-supporting schools nor to the professions of law, civil engineering, etc., that Toronto Medical School should be supported either in whole or part by Government funds."

MEDICAL MEN AS DISPENSERS.

The question as to whether physicians shall dispense their own medicines or not is now agitating the medical mind in the United States, and many are the arguments *pro* and *con*. One medical society (Cincinnati) goes so far as to attempt to make it obligatory for all its members to always prescribe, never to dispense their medicines. On the other hand, many eminent men express it as their opinion that in this day of scientific pharmaceutical preparations, the physician should leave the day's supplies of triturates with the patient, thus preventing the unsightly accumulation of half-empty bottles that cover the mantles and stands of nearly every sick chamber, at the same time saving the patient the extra fee for drugs, while the increased number of calls rendered necessary would be better for the doctor from a financial standpoint. It is claimed that much of the success of homœopathy, which is making such headway in the United States, is due to the fact that the drugs are given by the physician to patients. One of the arguments in favor of the tablet triturates is their cheapness, and as a general thing their scientific exactness of dose. On the other hand there is one objection which may be urged against the triturate or any solid drug, and that is the fact the absorption is not so certain or speedy when the drug is given in the solid as in liquid state.

It is certain that salycilic acid and quinine are more liable to have the desired therapeutic action if given in solution, there not being the same liability of giving rise to gastric irritability when these drugs have to be given for any length of time. Opium, too, will sometimes disappoint if given in pill or tablet form. At the same time, the objec. tion above can, in a great measure, be obviated by pulverizing the tablet and mixing it with some suitable menstruum.

Another more serious objection has been raised by the *Therapeutic Gazette:* "Already the competition between manufacturing houses is great. The physician would have no interest in buying his supplies as cheaply as possible, and there might be a temptation for the pharmacist, to fraud in the quality of his drugs and an incentive to short weight, hence the element of unreliability is introduced."

But this objection can also be applied to some retail druggists. Changes have been known to occur in the putting up of prescriptions, when, for instance, strychnine has been substituted for quinine (because cheaper), and an important ingredient of the prescription has been left out because the chemist did not happen to have it in stock.

In Canada, we are happy to say that the druggists are of a higher moral standing than in the United States; and it would not be more than right to state that, as a rule, they are conscientious, hardworking men and thoroughly reliable.

THE NEW DIPHTHERIA HOSPITAL.

One of the local newspapers recently drew attention to the fact that the new diphtheria hospital, instituted by the Board of Health, for the isolation of patients suffering from that terrible scourge, was being managed in a very peculiar manner, having only one nurse to about nineteen patients, who are nearly all in one ward; also that the nurse had to spray the children's throats, holding in one hand a lamp, and endeavoring with the other to overcome the patient's struggles and use the solution for spraying the throat at the same time—a thing it would take all her skill to manage. If these reports be true, it is no wonder that parents object to the law stepping in, taking the children suffering from this disease, and placing them in such a comfortless barracks as the account in the *World* would lead people to believe the hospital to be. Nor is this all. Each patient should be isolated, for we are well aware how exceedingly difficult it frequently becomes to make a correct diagnosis between tonsillitis—especially the follicular form—and diphtheria, for in the latter disease the membrane is sometimes wanting, as Morell McKenzie has pointed out, and most practitioners would prefer to call quinsy diphtheria, and err on the safe side. This would be all right if each patient was kept separate from the others, but, let us suppose a case of tonsillitis is sent to this hospital, placed in a ward with others suffering from genuine diphtheria, and what do we find? That the comparatively mild affection has grafied upon it the more malignant disease, with death, perhaps, as the outcome. The fault lies in the penny wise, pound foolish policy of the City Council, who, at the present moment, are suffering from an acute attack of economical mania, and seem to endeavor in every way to hamper the laudable efforts of Health Officer Allen to give us a clean bill of health.

BELL TELEPHONE CO.

We hear a great many complaints from medical men regarding the action of the Bell Telephone Co., in charging $40 per annum for the use of their instruments, while $25 is the rate for private houses, where, as a rule, the telephone is used as frequently, if not more so, than in the physican's office. The Company last year made a sort of indefinite promise to lower the rates, but have not done so, hence the complaints we hear on every hand. In our opinion $25 would be quite sufficient remuneration for the present service, which, as a rule, is nearly useless after dark, owing to the current from the electric light system, causing such a buzzing and roaring that little else can be heard. Of course the Bell Telephone Co. being a monopoly has the advantage of being able to dictate their own terms. But if the medical men of the province drop a hint to their local member some of the privileges now enjoyed by the Company might be curtailed, or, if that was impossible, a new and rival corporation might be successful in their efforts to obtain Legislative recognition. It would not be a bad idea to have a meeting of the medical men convened to discuss the matter during the coming summer.

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PROPHYLAXIS OF INHERITED INEBRIETY.—At the quarterly meeting of the Society for the Study of Inebriety, on January 5th, Dr. Charles Hare presiding, a paper was read by Dr. James Stewart (*Br. Med. Jour.*), who said they could not too often, as scientific men, protest against the use of the words drunkenness and inebriety as if they were controvertible terms. M. Trélat had put the difference very clearly: "Drunkards are people who drink when they find any opportunity of drinking; dipsomaniacs are diseased persons who get drunk whenever their attack seizes them." The conclusions arrived at were summarized as follows: 1. Drunkenness is a vice, inebriety a disease. 2. The disease of inebriety once established may be transmitted to the offspring, either in the form of the alcoholic diathesis, epilepsy, chorea, insanity, or even tendency to crime. 3. The child of an inebriate, born after the functional or structural lesion has been established, is sure to inherit some nervous diathesis. 4. The only security against this diathesis developing as inebriety is by lifelong total abstinence on the part of the child. 5. Even the adoption of this precaution will not absolutely make certain that there will be no transmission of the cachexia by the child to his or her own offspring. 6. To prevent the development of the alcoholic neurosis in other directions—such as epilepsy — sudden excitement of the emotions and sensibilities (such as might be produced by corporal punishment at the hands of strangers) should in all cases be guarded against. 7. In the prophylaxis of inebriety the principle to be acted on with regard to children's training is that, if the good be accentuated, the evil is attenuated. 8. The marriage of the child or even grandchild of an inebriate to a first cousin should be absolutely interdicted. A brief discussion ensued.

SALTS OF STRONTIUM. — Dujardin-Beaumetz (*Sem. Méd.—Br. Med. Jour.*) makes some further statements as to the clinical uses of salts of strontium. The only salt of which he had had any experience was the lactate. This he had employed in a number of cases of Bright's disease, with albuminuria; under its influence he had the satisfaction of seeing the albumen diminish very considerably, in some cases being reduced to one-half of that previously excreted. He attributed this favorable action rather to the very beneficial action of the strontium salts on digestion than to their direct action on the kidneys. At the same time he pointed out that the greater or less quantity of albumen passed was of less importance in the prognosis of the disease than the proportion of toxines retained in the organism, which the renal filter either retains or allows to pass into the urine. He recommended that a milk and vegetable diet be employed in combination with the drug, which he gave in doses of ʒjss. per diem.

PUNCTURE IN CHRONIC HYDROCEPHALUS. — Karnitzky (*Arch. für Ped., Br. Med. Jour.*) reports five cases of chronic hydrocephalus treated by puncture. In none of the cases did any complication follow the operation, which was performed with aseptic instruments. In two cases the child died; in one the head was tapped twice, in the other five times; in the latter, death was due to diarrhœa, and considerable improvement followed the first tapping. In another case, tapped five times, the child was growing rapidly worse when last seen; one case was only under observation five days; in the fifth case—a female child, 11 months old, with a very large head, with extremely thin bones—six punctures were made during the course of a month; the circumference of the head was reduced from 70 to 62 centimetres, and when at the end of this time the child ceased to be brought for treatment, it appeared to be doing well.

Lyman Bros. Tablets.—We desire to call the attention of the medical profession to the tablets manufactured by Messr. Lyman Bros., Front St. E., Toronto. The quinine tablets are especially to be commended, filling, as they do, a long felt want, in that quinine can be administered in a tasteless form and not in capsule. Many patients are not able to swallow capsules, and object to quinine in an acid vehicle. These tablets disintegrate in from one to two minutes in water, and when givèn during such period are wholly tasteless; they can also be placed upon the tongue and allowed to remain for a minute until they soften, and their deglutition aided by a draught of water. We have tried them and have been so favorably impressed with their use as to recommend them where other modes of administering quinine presents any difficulties.

The same firm are producing other tablets which are giving very great satisfaction, notably that of cannabis indica, which from the purity of the drug emyloyed has given great satisfaction.

Eczema.—Hollopeter has used with great success (*Times and Reg.*) the following:

℞.—Ac. salicylic.	gr. xx.
Zinci. oleat	ʒij.
Cocaine	gr. v.
Pulv. amyl, q. s.	℥ij.—M.

Sig.—Use as powder, externally.

The salicylic acid prevents fermentative changes in the skin; oleate of zinc adheres very closely to the skin, and protects it; the cocaine may be put in or left out, conditionally as to whether there is pain or not.

If, on the second visit, there is little pain, and the scales are drying up, the cocaine may be discarded; later, the zinc may be left out, then the acid, so that finally only the starch is left. After this, alcohol may be used.

How to Administer Ether.—Dr. John A. Wyeth, of New York, repeated remarks (*Med. Rec.*) which he had made on a former occasion, in praise of the administration of ether by the Ormsby inhaler, whereby a maxium effect with a minimum amount was secured. He had operated half an hour while using half an ounce of ether. By this inhaler the patient breathed the same air repeatedly, as it was confined in a rubber bag, and the anæsthesia was due doubtless largely to the carbonic acid gas inhaled. Where free air was constantly mixed with the ether, as by ordinary inhalers, the respiratory tract was chilled; much ether being used, internal orgrans, especially the kidneys, were liable to become affected.

Prolapsus Ani.—Dr. Adolphus, in *Ga. E. M. Jour.*, says: Prolapsus ani is often cured by hypodermic injections of strychnine. The canula is inserted about three-fourths of an inch from the anus and pushed straight down parallel with the rectum into the cellular tissue. About one-twelfth to one-sixteenth grain of strychnine is injected at each time; the operation may be repeated in severe cases every twenty-four hours, ordinarily every forty-eight. Seldom more than eight injections are needed to make a cure.

The Dispensary Abuse.—We (*Med. Record*), are pleased to see that the daily papers are agitating the question of dispensary abuses, and are taking sides with the younger practitioners. Numerous instances are related in which well-to do patients crowd the waiting rooms, simply because they can get the best advice from experts for nothing, and without question. It is too bad, but it is true. Many of our hospitals do the same, and will be foremost in claiming numbers of so-called paupers treated when the hat goes around for the annual hospital collection, so near at hand.

Treatment of Hyperidrosis.—In the *Revue Gèn. de Clinique et de Thérap.*, the following prescription (*Med. News*) for sweating of the hands and feet is given. The application is to be made night and morning. The part is first washed with hot water and immediately afterward the following ointment is applied:

℞.—Ichthyol	1 ounce.
Vaselin	1½ ounces.

Personal.—We are pleased to note that Dr. R. T. Irvine (McGill '85) has been appointed by Governor Hill, as surgeon to the Sing Sing Hospital. His many Canadian friends will congratulate him.

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SYMPATHETIC OPHTHALMITIS—A PRACTICAL STUDY.*

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Mr. President and Gentlemen,—In attempting to place before you to-day a few thoughts upon the subject of Sympathetic Ophthalmia, I am led to do so by questions that have arisen in dealing with such cases as have fallen under my direct observation; and as you are all likely to meet with similar cases, I feel the less diffidence in addressing you at some length in connection therewith.

That inflammation might arise in a sound eye, the result of and caused by pre-existing inflammatory processes in the other, is a fact long since noted, but the only really earnest investigations into the subject have been made within the last fifty years.

The pathology of this disease is an interesting study, but as yet the question is so unsettled that we can hardly gain any positive and reliable indication in treatment from its consideration.

The idea advanced in 1844 by McKenzie, of Glasgow, that the irritation travelled by the path of the nerves from the one to the other eye, has still to be shown to be unsound.

The bacteriological investigations of Deutschman, who maintains that he has proved conclusively by experiment, the presence of bacteria in the affected eye, which have travelled thither from the irritating eye by means of the peri-vascular lymphatic system of the optic nerve, are held by Schweigger, Alt and others, to upset the nervous theory, and to settle the question finally by proving that this disease is dependent alone upon the entrance of bacteria—an obvious inference being that the disease can be prevented by procuring and maintaining an aseptic condition of the irritating eye.

Even if the presence of these bacteria were always discoverable, they would not in any way explain the lapse of time which sometimes occurs between the injury to the irritating eye and the onset of the sympathetic inflammation—a period which in one case is recorded as sixty-one years. Moreover, the results of Deutschman's investigations have been denied by Randolph, who in a large number of experiments on animals, *was never able to detect the presence of bacteria in the eye or the optic nerve of the sympathizing side.*

I think we are still bound to admit that clinical evidence is in favor of the theory that the influence is a nervous one, travelling by the ciliary nerves through the ophthalmic ganglia of the sympathetic, trophic and the vasomotor nerves, or by the optic nerve, exciting trouble in an eye otherwise sound, and so giving rise to the various conditions present. The share which bacteria take in the causation, if any, is still undefinable.

The view I have here urged, is directly opposed to that of the author of a recent article in the *Montreal Medical Journal*, who adopts the bacteriological theory of causation as the only tenable theory. Much as I respect his opinions, I submit that we have many instances where a constantly irritated point will give rise reflexly to pathological conditions elsewhere, as in the nasal neuroses; and that while it is true that in those cases where the removal of the irritating eye has been too late to prevent the occurrence of the sympathetic inflammation in the other, the virulence of this inflammation has been modified by the enucleation, this fact only goes to show that the cause was neuropathic, for with the removal of the irritating point, the effect upon the nerves soon wore off; whereas, if bacteria have once travelled from the one eye to the other, I fail to see how their action in their new home could be modified by the fact that their former one was destroyed after their departure.

The cases of eye trouble in which so-called sympathetic ophthalmia may be feared as a possible contingency, may, for the purposes of this paper, be viewed as divided into those where the danger is an *immediate* or a *remote* contingency.

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* Read before the Huron Medical Association at Seaforth, January, 1892.

The danger is immediate in all cases where the eye-ball has been recently wounded, from any cause, or to any extent, especially if the wound be in the ciliary region, and, more especially still, if the object causing the wound remain lodged in the eye. The danger is remote in all cases where some disease process has been going on in one eye, which in its course has involved the iris or the ciliary region, such involvement frequently leading at some future time to the onset of sympathetic inflammation in the other eye.

When called to see a patient suffering from some injury involving, or suspected of involving, the eye, the question must present itself in view of the damage done, Is it wise to leave the eye in position, or should some step be taken to preclude the possibility of an ultimate loss of sight in the other eye?

The answer to this question will depend upon several points: 1st, the amount of sight left in the injured eye; 2nd, the region involved; 3rd, is there a foreign body in the eye?

1. If the sight is lost, the eye should be removed instanter, as *any blind eye is at any time a source of danger*. If the sight be largely affected and not likely to be regained, and unless there be other strong reasons to the contrary, it were better to enucleate at once. It is true that a better stump will be made by evisceration and the insertion of an artificial vitreous, but this is an operation that the general practitioner can hardly be expected to be prepared for, and ere an oculist can be brought, great damage may be done.

In advocating the removal of the irritating eye I am fully of the opinion that in the hands of an oculist other operative measures, less radical and less repugnant to the patient may be equally efficacious, but in the hands of the general practitioner, I consider enucleation the only justifiable course.

In the case of children, where the loss of the eye-ball is so frequently attended by imperfect after-development, the operation of enucleation should be avoided if we can avail ourselves of skilled advice.

2. With regard to the bearing of the position of the wound upon the question, we must keep in mind that any wound of the ciliary region, which involves the iris, even wounds of the cornea near the sclero-corneal margin, are especially liable to cause sympathetic inflammation. Still it is in all cases most desirable to save the eye, and if the patient be intelligent and good aid be close at hand, I would prefer to recommend an expectant plan of treatment combined with thorough asepsis, instead of immediate removal.

The danger of sympathetic inflammation is not limited to accidental wounds of the eye-ball, but is found in connection with wounds made by the surgeon himself.

3. Where we have to deal with a foreign body, the question is even more serious. Foreign bodies have remained imbedded in the eye for years, without causing any serious damage, but as a rule the prognosis is bad, especially if they have penetrated or are located in the ciliary region. A foreign body can be removed, as a rule, if lodged in the cornea or iris, but if it has entered the vitreous, removal is difficult, and it is apt to gravitate to the lowest point, and there produce irritation.

The danger from a foreign body abiding in the eye, arises whenever it is embedded in the iris, ciliary processes or the choroid, or is lying on the retina, and pressing upon the choroid. In cases where the entrance of a foreign body is suspected but not demonstrated, the suspicion will be strengthened if the wound does not heal kindly, or if the reaction is in excess of what the origin and nature of the wound would appear to justify.

The residence of a foreign body in an eye will endanger, sooner or later, the existence of that eye itself, and may bring about sympathetic trouble in the other; therefore the course of action and prognosis must be carefully considered, and unless you are sure that your patient is of sufficient intelligence to keep watch for the slightest symptom of irritation, it is wrong to let him out of your hands without providing against the contingency. The object which enters the eye may be of any nature whatever, and is equally dangerous in all. A case was reported by Goode, in the *Journal of the American Medical Association* some time ago, where a bullet was supposed to have grazed the eye-ball, as no trace of it could be found. For ten years, there were symptoms of irritation in the sound eye—not referred to the original trouble—

and removal of the wounded eye revealed the bullet lodged in the rear, and relieved the patient of all trouble. Too much importance can hardly be placed upon the necessity of a prompt realization of the dangers to the patient, which arise from the injury, that no stone be left unturned to remove the danger and to make the patient realize that danger. Many have had to bless their physicians for the loss of eyesight, that might have been spared to them.

A lens dislocated by a blow is a foreign body that has not infrequently produced sympathetic trouble and must not be overlooked. Another cause of sympathetic inflammation which hardly falls under this head, and yet must be remembered, as explanatory of indications of inflammation not otherwise explained in an apparently sound eye, is the irritation of an artificial eye upon a stump.

Given a patient in whom then we have reason to look for the occurrence of the disease, but where the conditions are not such as to demand the immediate removal of the irritating eye, we must be able to put him in possession of such information as will enable him to lose no time in consulting a physician when the first symptoms appear.

The symptoms that the sound eye is threatened vary, but include, a vague sense of smokiness before the eye; a difficulty in focussing small objects; difficulty or painfulness in reading fine print; flashes of light with changing colors; wavering mists before the eyes, as of heated air rising from a stove; lachrymation in using the eye for near work.

These are the symptoms of the *stage of irritation* which always precedes the outbreak of inflammatory processes. Sometimes they only appear when the bad eye becomes inflamed, to subside again when the inflammation subsides, but any of these should form sufficient ground for a thorough ophthalmoscopic examination.

The patient sometimes has a constant sense of something wrong in the sound eye; now and then neuralgic pains are felt in connection with the sound eye, or photophobia when exposed to a bright light.

Further information may be gained when the patient is examined. A painful spot may be located in the sound eye, corresponding to the seat of pain in the irritating eye. A faint blush may be observed around the cornea. The patient may read fine print, or see well at a distance, but be unable to maintain the effort for any length of time. Optic neuritis may perhaps be discovered with the ophthalmoscope, or signs of choroidal trouble be made out.

Such a conjunction of symptoms would warrant a diagnosis of sympathetic irritation, which experience has dearly taught us, may develop even in twenty-four hours into true inflammation. We cannot be too keenly aware of the danger, and of the necessity for prompt action. or the very worst results may be anticipated.

We unfortunately often meet with these cases for the first time after the irritable condition has become too serious to be longer neglected, or where the second stage, that of inflammation, has begun. The irritable stage is generally of short duration, so short as sometimes to cause a denial of its presence at all, and especially so in the class of cases that we styled *immediate*.

The signs of actual inflammation will be pain, redness, decided impairment of vision, as experienced by the patient, and as observed by the physician, iritis with discoloration of the iris, contraction of the pupil, posterior synechiæ, and blocking of the posterior chamber. Pain is, however, not always present, especially in children. The development of the inflammation is rapid, with a great output of very plastic lymph, which has pronounced tendencies to organize.

Coming now to the discussion of our line of action when either of the above conditions presents itself, we find that as a rule we cannot err, if we fully apprehend the conditions present. First, as regards the treatment of the *diseased eye*. When we have signs merely of irritation in the sound eye, we must treat only by removal of the cause—the diseased eye. It is a standing menace to the sound one, and must be removed as quickly as may be.

The loss of an eye is viewed with repugnance naturally by every patient, but there is all the more necessity for a clear statement upon the part of the physician as to what may be feared, nay, expected from the retention of the irritating eye. Few are so sanguine, or unintelligent as to fail to understand what the loss of two eyes entails. We have, moreover, the almost absolute certainty, that the removal of the diseased eye will be followed by a cessation of all symptoms, and future exemption from the danger. It is dangerous to attempt any palliative measure.

We have already stated, that in that class of cases where the danger is an immediate one, we are without option in removing the eye, if all sight be lost. Where partial sight is retained, we are justified in waiting cautiously, but the first symptom of irritation must be followed by enucleation.

In the cases where danger was classed as remote, the operation must also be performed upon the first sign of irritation, and again the happiest results may be predicted.

If the stage of inflammation has begun ere we have been able to enucleate, we had better leave the diseased eye alone, if it possess any vision worth speaking about. Removal of the irritating eye at this stage seldom effects any good results for the sympathizing eye. An early operation may stop an inflammatory process, but this is not to be counted upon even if done the very first day. Its only effect, as a rule, is to mitigate the sufferings of the patient. Operation is contraindicated if the stage of inflammation be advanced. If a degree of sight remains in the diseased eye this may be afterwards all the patient will have to depend upon.

With regard to the treatment of the sympathizing eye. In the irritation stage it is very amenable to treatment, the other being removed. Rest from all work, for months if need be, and shade will effect wonders. These may be assisted by mercury inunctions, tonics, fresh air and exercise.

In the inflammatory stage, we can simply try to soothe, for it shows great power of resistance to every measure. Atropia instillations, belladonna fomentations, morphia hypodermically, will assist, and mercury may be given hypodermically through the conjunctiva. Operative interference, such as iridectomy, is unwarranted.

The outcome of this stage is generally the worst possible.

Sympathetic affection of a sound eye, however it arise, is something which it behoves us to carefully watch for and guard against, seeing our patients have but two eyes, and yet it frequently requires the nicest discrimination to decide whether or not an injured eye must be excised as liable to bring about the consummation not devoutly to be wished.

The fact that there is no time limit to the danger is a great element of difficulty in diagnosis, inasmuch as we can never assure our patient of safety in the enjoyment of his treacherous possession. Danger is present from the very first. As a rule, two to three weeks elapse before the sympathy is exhibited. The danger of sympathetic inflammation exists especially during the period in which the irritating eye is inflamed, and every symptom of this must have disappeared ere we can let our patient out of close observation.

It is, however, no uncommon thing for a year to elapse before the sound eye is affected, and even ten, twenty, and in one case reported from Chicago, sixty-one years elapsed.

No time limit can therefore be set beyond which symptoms may not arise. The disease is, among diseases a veritable "snake in the grass."

A NARROW PREPUCE AND PREPUTIAL ADHESIONS IN CHILDHOOD—FURTHER OBSERVATIONS ON THEIR DELETERIOUS RESULTS. *

BY H. W. BRUCE SMITH, SEAFORTH, ONT.

The causes of disease present to every worker in the field of general practice, the most interesting, yet sometimes the most difficult, themes for thought and research, and experience establishes the fact that in many of the most common affections, we are yet occupying positions which we cannot regard as perfectly sound and unassailable While contagion or infection are recognized as etiological factors in many diseases, yet in few of these has the ultimate element by which the disease is communicated been with perfect certainty determined, although as isolated and brilliant exceptions, which mark the modern achievements of medical science, must be mentioned the research which led to the discovery of certain microscopic organisums, micrococci, bacteria and bacilli, as the true causes of different diseases. These discoveries have, however, as yet yielded but meagre therapeutic results, and necessity compels us to fall back upon our clinical records, for the best possible basis upon which to study and combat disease. In no class of diseases is this more true, and in no department of general practice do

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* Read before the Ontario Medical Association, Toronto, June, 1891.

the gleanings from practical experience prove of greater value than in the diseases of children, and the only object of this paper is to furnish a few further observations on a subject which I deem worthy of attention.

At the meeting of this Association two years ago, it was my privilege to present a paper on certain reflex nervous phenomena due to preputial contractions, and to briefly relate the clinical histories of a few cases, in which, as the results clearly proved, there might be a causative relation between certain nervous symptoms, and an abnormal condition of the penis, and that by directing our efforts to relieve that condition, we might in some instances restore a delicate boy to the full vigor of joyous childhood. I have now to present, as briefly as I may, the histories of two interesting cases, which have lately come under my observation, and the results of which are, to me, further convincing evidence of the importance of the subject I have, now for the second time, to bring before the Association.

In reference to the cases previously reported, I may say that the relief has been permanent, that each child has lived, and developed in mind and muscle, and none of them have had any return of the symptoms once so distressing.

Case No. 1.—Albert L., aged nine years, the son of parents who have been exceptionally healthy, and neither of whom has any relative who has any nervous disease, was brought to me by his father, who gave me the lad's history. For the first five years of his life the boy had enjoyed good health, but in his sixth year the parents noticed choreic movements of the lower limbs, and inability to remain standing more than a moment or so at a time, without peculiar twitchings in the muscles of his legs. Shortly after passing his sixth birthday and after a day spent in play, the child had a severe convulsion lasting several minutes, which so alarmed his parents that the family physician was called, and after prescribing the usual remedies the patient was soon restored to his usual health. Three months afterwards another severe convulsion occurred, the next in two months, and gradually at shorter intervals, until when brought to me he was in the habit of having a convulsion every two or three weeks. He would generally make a rapid recovery after each convulsion, but the choreic movements of the limb would continue unabated. His appearance when first seen at my office was that of a pleasant-faced healthy lad, and there was no evidence of any impairment of the mental faculties. The father brought with him a detailed account of the child's history and from this I readily saw that all the remedies commonly employed in such cases had been given a faithful trial. On examination of the penis I found the prepuce elongated, contracted and adherent, and did not hesitate to explain to the father that I thought that abnormal condition might account for the lad's disease. Placing the child under chloroform, I introduced a director and slowly broke up the adhesions, and after making a small slit in the prepuce the glans were exposed having a perfectly raw surface as far back as the corona. The prepuce had to all appearances been adherent for a long time to the glans, which was much smaller than usual at that age. Behind the corona glandis and pressing into it was hardened cheese-like smegma which on removal left a distinct red ring of depression, completely encircling the organ. I painted the parts over with tr. benzoin co., and after applying dressing, the child was removed to a friend's house. The next day he was bright and doing well. There being no unfavorable symptoms and the parts healing nicely, I gave my permission in a few days, for the child's removal by train to his home. The father was instructed to keep the parts carefully washed with hot water every day, for a short time, and to examine the penis each week and prevent any tendency to adhesions again forming. At my request the lad was brought to me every month for three months, but at the end of that period as there had been no return of the convulsions and choreic movements of the limbs had entirely ceased, I was glad to dismiss the case as cured. I quote from a letter received from the father of the child during the past week, as follows: "Albert is doing well and appears to be in the best of health. He is at school every day and has not had a convulsion since you perfomed the operation on him last summer."

Case No. 2.—R. S., aged 9 years, son of a clergyman living in a western town, was referred to me by the family physician, in November last, with the following history. For the first two years of the boy's life, he had been healthy and bright. At the age of twenty-seven months he had a slight convulsion, and as none of the other children in the family had ever had a similar attack, it caused considerable anxiety to the parents, who, however, presumed that it was due to some derangement of the digestive organs, and did not call in a physician. Three months after, the child was seized with another convulsion, which was more severe than the former one, and medical aid was at once invoked. The cause assigned for the convulsions was that term so commonly, and yet often so erroneously, used "worms," which, I fear, are too frequently called upon to account for morbid conditions with which they have no connection. During the next five years the convulsions returned with marked frequency and with such effect that the child once bright and active began to manifest symptoms of impaired mental activity and the parents were inclined to look upon the case as hopeless. During these years the child had been given, as far as I could learn, careful medical treatment but nothing seemed of the slightest avail. At the age of six he commenced to learn the alphabet, and for a time seemed to grasp the subject, but as the convulsions became more frequent memory grew weaker, and the alertness and brightness of youth gradually gave place to the characteristic appearances and actions of a mild imbecile. During his ninth year the convulsions occurred at least every two or three weeks and general symptoms, prominent among which were nocturnal eneuresis and involuntary passage of feces, indicated to the grief of the parents that their son had become a confirmed invalid. Shortly after a severe convulsion his father brought him to me. His appearance was that of a well developed child with that expression of countenance peculiar to children of weakened intellect. After careful examination of the patient, his habits and family history, and realizing that the lad had doubtless had excellent medical treatment, I suggested that the cause might perchance be due to an abnormal condition of the penis.

On inspection I found distinct evidence of phimosis the prepuce being greatly elongated, and on making an effort to retract it and expose the glans, I discovered that the prepuce was completely glued down to such an extent that there was no trace of it ever having been anything but adherent. Placing the child under chloroform I made a complete circular incision and removed a portion of the prepuce and slowly dissected the remaining portion until the glans became gradually exposed. In this case there was marked enlargement of the glans, and behind the corona and completely encircling it was smegma as tough as leather, as large in circumference as an ordinary lead pencil and containing chalky concretions. This too was partially adherent, and when taken off left a surface studded with small granulations which bled freely on touch. After dressing in the usual manner, and giving strict precautions as to cleanliness, etc., I allowed his father to take him home the same evening by train. He reported favorably of the child's condition every few days, and a month afterwards brought him to me again. He had had no convulsion during that time and had every appearance of improved health. The wound had healed completely and showed no sign of the mutilation, which has sometimes been urged as an objection to circumcision. The prepuce was freely movable. For the following four months the little fellow was brought to me each month, and from the date of the simple operation in November last, to the present time, he has not had a single convulsion. Within two months after the operation his parents noticed that the child's mental faculties were commencing to improve, and although I assured them that a considerable time must necessarily elapse before the intellect, impared as it had been by the long continued convulsions, could, if it ever would, be clear, they remarked with pleasure several indications of improvement in mind and memory. A few weeks ago, being convinced that the cause of the convulsions had been removed, and noting the anxiety of the parents to hasten the acquirement of the lad's intellectual faculties: I advised his removal to an institution where special attention is given to the mental treatment of children. I am glad to know that by following my advice the child has been given the best possible chance for acquiring that which the persistency of his disease deprived him of for such a length of time.

These and the other cases, which I have had the privilege of reporting, furnish, I think, further distinct evidence that in some instances, where there is no evidence of an organic lesion in the brain or nervous system, and where the practitioner is puzzled in determining the exact cause he may discover those reflex nervous symptoms to be due to a narrow and adherent prepuce. The explanation is by no mean difficult, knowing that no nerves in the human system are more sensitive than those supplying the genital organs, and being familiar with the varied reflex symptoms due to dental, gastric or uterine irritation. I again repeat that while any attempt to relieve nervous symptoms when due to some central lesion by an operation on the genitals would be utterly unjustifiable, we are always to bear in mind that very anomalous and extraordinary nervous symptoms may be entirely dependent upon genital irritation, and for relief, the simple operation to which I have alluded, is not only justifiable but absolutely demanded.

Selected Articles.

NERVOUS AND MENTAL PHENOMENA AND SEQUELÆ OF INFLUENZA.

BY CHARLES K. MILLS, M.D., PHILADELPHIA, PA.

All practitioners have been struck by the prominence of nervous and mental phenomena in influenza; and much has been written, but mainly in a desultory way, about the symptoms of the disease which are referable to the nervous system, and its more or less persistent nervous and mental sequelæ. The part played by the nervous system in the etiology and history of the disease has been variously interpreted. One holds that it is a "nervous disease," without explanation; another describes it as a pneumogastric neurosis; another as a neuropathy due to ptomaine poison. According to Blocq, cited by Church, the primary infectious action takes place upon the nervous system during the disorder, while sequelæ are to be attributed to secondary infection from ptomaines. Cheston Morris, of Philadelphia, advances the theory that the general symptoms of influenza may be traced to a derangement of function, or partial paralysis of the pneumogastric nerve, and that the affection is brought about by conditions of the atmosphere, which particularly tax the cardio-pulmonary apparatus which is regulated by this nerve, a view which, after all, relegates the disease to an atmospheric or infectious cause. Graves long ago referred the bronchial and pulmonary symptoms of grippe to lesions of the nervous power of the lungs, and Blakiston regarded it as a disorder of the nervous system, with concomitant derangement of the organs of digestion, circulation, etc. Levick, who cites the last two authorities, holds that certain symptoms are produced when the poison is expended on the sensorium, and certain others when its influence is chiefly exerted on the respiratory centres.

The analogies or relationships between influenza and other diseases generally recognized as belonging to the nervous system, either primarily or because of the situation of their most notable lesions, have been strongly brought out by able writers, as by Levick, for example, who has even suggested that epidemic cerebro-spinal fever, or cerebro-spinal meningitis, may be simply a malignant form of influenza, a view to which he was led because of the resemblance in the symptoms of the two diseases, which differ in degree rather than in nature, and also because for three centuries the two have occurred coincidently or in close sequence.

Grasset and Rauzier, in a monograph on the grippe of 1889–90, lay great stress on the enormous predominance of the nervous over the catarrhal elements in the epidemic, as evidenced in the high fever, great cephalaigia, the marked delirium, the widespread pain, and the excessive nervous irritability. They refer to cases communicated by M. Coustan, in which the entire symptomatology of the disease seems to have reduced itself to a horrible migraine. They review the literature, which shows that writers of various countries are unanimous in proclaiming the importance of the nervous element—referring to Austrian, Russian, Belgian, German, English, and Polish contributions.

According to Schmitz, who read a paper on the subject before the Psychiatric Society, at Bonn, influenza is a disease of the nervous system with secondary involvement of the heart, lungs, and digestive organs. In several hundred cases which he observed the nervous symptoms were always primary, followed in every case by secondary involvement of the other organs.

What seems to be needed is an analysis and practical grouping of the facts, almost too numerous to handle, which shows the important part played by the nervous system in the development, progress, and results of the disease. How is the nervous system affected by influenza? What are its primary or direct effects on the nervous system, and what are some of the more persistent and permanent impairments, and how are these determined by the disease? What are its acute nervous and mental phenomena, and what are the most common sequences? What is the probable pathology of these states, and what treatment is best in view of the neurotic characteristics of the affection?

The briefest consideration of the subject brings forcibly to mind the fact that all diseases of infectious or toxic origin—epidemic, endemic, sporadic, or accidental—may strike any or all parts of the nervous system with a result which will be proportionate: first, to the virulence of the infecting agent; and, second, to the resistance of the individual, whether this is due to constitutional predisposition or to reductions the result of previous injury or disease. The microbes may differ, but a bond of union and close resemblance can be recognized between the effects on the nervous system of all contagious and infectious diseases, as variola, scarlatina, diphtheria, measles, whooping-cough, typhoid or typhus fever, leprosy, mumps, cholera, erysipelas, puerperal fever, influenza, or cerebro-spinal meningitis; of all of such constitutional and diathetic affections, as tuberculosis, gout, rheumatism, and diabetes; and of all such toxic agents artificially introduced into the system, as alcohol, mercury, lead, arsenic, copper, and poisonous gases. These diseases, these diatheses, and these poisonous metals and gases produce, or may produce, nervous and mental phenomena of the same character, differing in degree in particular cases and for special reasons.

In all these affections at the time of acute onset, if the illness is of a serious character, such symptoms are present as great mental and nervous debility, irritability, restlessness, sleeplessness, or the opposite state of torpor, stupor, hebetude or coma; delirium; vertigo or syncope; headache, browache, napeache, backache and limbache; pains of all degrees of severity referred to various nerve areas; hyperæsthesia of the skin, of muscle-masses, or confined to nerve-trunks or branches; spasms, local or general, and with or without unconsciousness; sometimes mental disturbance amounting to a true mania or melancholia. During the progress of such affections any one or several of these enumerated symptoms may be present. Supra-orbital pain, for example, may be the only prominent nervous symptom in a case of influenza; headache and backache in diphtheria; hyperæsthesia in mumps, diabetes or gout; and mania in a case of puerperal infection. Any infectious or toxic disease may, in brief, produce the same symptom, syndrome, or train of phenomena; and—which is the main point—for the same reason, namely, because of the introduction into the system of an agent which directly and powerfully poisons nerve centres, and possibly also nervous conducting tissues.

Following all infectious, diathetic, or toxic diseases, moreover, or directly springing from them, common experience teaches that we may have great nervous or general weakness; forms of insanity of the depressive type; paresis and paralysis of every grade from an affection of a single muscle to that of all the extremities, and even more; localized spasm or cramp; general convulsions; pain in nerves, muscles and joints; and losses or perversions of sensation.

These symptoms and conditions, which may occur at the onset, during, or after the subsidence of any infectious or toxic disease, are those which constitute the nervous features of the prevailing epidemic I have introduced the subject in this way because it seems to me that it is this comprehensive grouping of generically similar phenomena which enables us to most readily grasp a subject even for practical purposes. We differentiate phenomena in our daily labor, which we only understand by properly grouping them, and by referring them to a common or to related causes.

Any attempt to classify the nervous and mental phenomena of influenza must be attended with great difficulties. These are, in the first place, symptoms and conditions which, although manifested in non-nervous organs, are directly traceable to a nervous origin; secondly, affections which would be recognized by all as properly referred to the nervous system; and, thirdly, affections occurring in nervous tissues and organs, although, strictly speaking, not nervous diseases.

I will refer very briefly to the first of these classes, although of much importance. I will not, however, discuss the nervous origin of the fever of influenza, nor will I attempt to explain the catarrh, indigestion, etc., on some neurotic theory, as such a method might lead us anywhere, and for our present purposes would be unprofitable. I wish simply to emphasize the fact that some of the most prominent pulmonary, cardiac, and vascular affections of influenza can best be explained on neural theories. Many personal observations have led me to the conclusions, not new, which has recently been well presented by Elliott, of New Orleans, that the pneumonias of influenza are often due to vasomotor paralysis; that they are, in fact, forms of blood stasis or passive congestion from vasomotor paralysis, which in its turn is dependent upon the action of the infection upon the pneumogastric centres and the nervous system in general. A distinct difference can be made out between the true pneumonic lung and this "grip-lung," as it has been termed by Elliott. Graves long ago attributed the œdema of the lungs which occurs in influenza to an affection of the vagus.

"The "grip-lung," according to Elliott, "has a long and very varying condition of passive blood stasis unaccompanied by râles. If resolution occurs within three or four days, it is accompanied by large mucous râles, and no time is given for the slow appearance of bronchial breathing or bronchophony; but during the long continuanec of the blood stasis, an exudation occurs, increasing slowly, which will give, in time, some bronchophony and bronchial breathing, but never so complete as in pneumonia. Resolution never occurs in these cases with the suddenness that characterizes it in acute pneumonia. The condition passes off as gradually as it formed. The sharp, clear-cut, and sudden phases of pneumonic attack separate it clearly from the obscure, irregular and slow phases of the *grip-lung*.

Many disorders in various parts of the body are best explained on this theory of local vasomotor paralysis, although it is not necessary to attempt to force this explanation for all. Hemorrhages, minute, or even of considerable size, occurring in diverse localities, as in the retina, membrana tympani, and interna lauditory apparatus, or in the skin, or mucous or serous membranes anywhere, may be due to deficient vasomotor tonus. Brain, kidneys, liver or pelvic organs may suffer from forms of passive hyperæmia, subacute or chronic, which are in fact due to forms of vasomotor palsy. Occasionally we meet with cases of vasomotor disorders of the extremities, such as flushed or *pallid* fingers.

Even trophic affections have occasionally been observed. Wilson, for example, refers to gangrene of the lungs as one of the less common complications. Abscesses of the limbs have been recorded. Grasset records two observations of eschars occurring in young subjects in the absence of prolonged decubitus. The greater tendency in surgical cases to suppuration may have its best explanation in the depression of healthful vasomotor and trophic influence.

The peculiar forms of pulse, and uncertain or perverted action of the heart, extending in some cases to cardiac palsy and death, or in a strict sense nervous phenomena due to paralysis, partial or complete, of the inhibitory apparatus of the heart.

Let me take up those symptoms and affections which would clearly be recognized as belonging to the nervous system.

I believe, with Church, "that the infection of influenza has a marked action upon the nervous system which may give rise to immediate acute manifestations or to remote and persistent conditions; and that in the predisposed, grippe is competent to cause marked excitement or great depression of the motor, sensory, and mental nervous apparatus."

Great nervous and mental prostration, both as an acute manifestation and as a persisting sequel, has engaged the attention and required the treatment of all practitioners. The mental depression often present as an initial symptom has been, in some cases, simply overpowering. Some of the patients are affected like individuals whose mental and motor centres have been poisoned to the limits of human endurance, while still permitting the retention of consciousness. In other cases even consciousness itself has been overwhelmed.

Not a few patients who suffered from attacks of influenza during the early period of the present epidemic are still victims of profound neurasthenia. I refer now to cases which are not distinctively of the melancholic type. These neurasthenics are unable to endure a fair amount of work; their nervous forces are soon routed; they are weak, worrisome, and unrecuperative. The cardiac weakness which has been left is undoubtedly in part the cause of this neurasthenia, and with reference to this, Church says that "the persisting neurasthenic condition, which so usually follows influenza, is attributed by some to cardiac weakness of nervous origin; and this contention is not without weight, if it is observed that even after appetite, sleep, body-weight, and physical functions have been long restored, the slightest exertion immediately produces disproportionate fatigue accompanied almost invariably by either a retarded or more frequently accelerated pulse, and rarely by præcordial distress and even by angina pectoris."

Curtin and Watson, whose experience in influenza has been enormous, say that although general nervous prostration often extended over long periods without any discoverable local cause, it was always worth while to examine the urine with care. "Sometimes a nephritis, sometimes a faulty digestion or hepatic inaction seemed to underlie the general condition in latent form. These cases, by enforced rest and attention to local complications, gradually recovered. These cases and nervous cases generally, were very disappointing when sent to the seashore during convalescence."

Among organic nervous diseases which have developed during the influenza or have been left in its wake, are in the order of their frequency, so far as my personal observation has gone, neuritis, meningitis, myelitis, and cerebritis, or various combinations of these inflammatory affections, as, for example, concurrent neuritis and myelitis, ingomyelitis or men-ingo-encephalitis.

Probably no single affection of the nervous system has been so common during and after the grippe, and particularly as a sequel of the disorder, as neuritis. Almost every variety of neuritis as regards location and diffusion have been recorded, and have come under my personal notice. Multiple neuritis, while not common, has not been rare; and I have seen a concurrence of this affection with poliomyelitis in the same case. Isolated neuritis of almost every cranial nerve has been recorded, with such resulting conditions as optic atrophy, loss of smell and of taste, ophthalmoplegias, both internal and external; oculor-motor, facial, and bulbar or pseudo-bulbar palsies of various types, including true pneumogastric paralysis. Several cases of specially located affections of the sympathetic ganglia or nerves have been recorded. Of the forms of local neuritis most common might be mentioned the supraorbital, intercostal, sciatic, and plantar.

An interesting case of neuritis with a myxœdemoid condition of the limbs presented herself at the Philadelphia Polyclinic recently. She had a sharp attack of influenza five weeks ago, having been in good health up to that time, except five years since, when she suffered for several weeks with inflammatory rheumatism. On recovering from the influenza, the attack not having been specially marked with nervous symptoms, she was extremely weak in the legs, and was scarcely able to drag herself around. In a few days her feet and legs began to swell and to be painful, and soon became of enormous size and exquisitely tender. She has gradually improved, but still has a condition of firm swelling, which does not pit on pressure, from her knees to her ankles, and she also still has great tenderness on squeezing the feet or ankles, or in handling the nerves or muscles of the limbs. She has no cardiac affection.

The articular pain and other so called rheumatic manifestations so numerous during the after attacks of the grippe, are after all best explained on the theory of infectious neuritis or myositis.

These cases with articular and other pains, and with swelling, recall the endemic or epidemic form of multiple neuritis known as beri-beri, in which the chief phenomena are œdema and paralysis of the limbs, with marked pain, hyperæsthesia and paræsthesia, followed later by anæsthesia, lost knee-jerk, and depressed electrical reactions. Myositis certainly, and probably also periostitis, occur as complications or sequences of the influenza, and usually in association with neuritis of some type.

Many of the reports speak of the frequent occurrence of various neuralgias. Doubtless a distinction is seldom made by observers and recorders between neuralgia and neuritis, which are or may be separate affections. Practically these cases should be regarded as neuralgic, in which pain is referred to certain nerve lines or radiations; but which pain on pressure, and the other phenomena of neuritis, such as anæsthesias, vasomotor and tropic disorders, and even paralysis, are absent. In my own experience the cases which could properly be diagnosticated as neuritis are by far the most common. The distinctively neuralgic pains are probably due to toxæmically depressed or exhausted sensory nerve-roots or centres in the cord or bulb.

Of diseases of the spinal cord proper, occurring as complications or consequences of influenza, the reported cases are not numerous, but they are none the less important. A few cases of myelitis have been put on record by native and foreign observers—one that I recall in which all four extremities were paralyzed. As would be expected, in accordance with the analogies with other infectious and toxic diseases, anterior poliomyelitis is the most common type. I have had several cases of temporary paralysis of one or more limbs, which, owing to the absence of pain and of cerebral symptoms, were apparently spinal in their origin, and probably light forms of inflammation. Concurrent multiple neuritis and poliomyelitis has already been referred to as having been observed by me in one case, in which the neuritis, which was not severe, soon disappeared, but a limited paralysis, evidently spinal in character, was left behind.

Several observers have reported cases of bulbar paralysis, and one striking example of this disease, attributed to the grippe, has come under my own observation, although exactly how far the influenza was responsible it is difficult to say. This patient, a clergyman, had a severe attack of influenza in May, 1890, and during its progress continued to work, and ate but little. In a very short time he noticed he was losing power in his hands, which soon atrophied. In January, 1891, he began to have difficulties of speech, and, briefly stated, the case went on until November, 1891, when he was first seen by me; his symptoms were those of well marked bulbar paralysis, with progressive muscular atrophy, chiefly involving the upper extremities.

In accordance with analogy, we would expect the occasional occurrence both of nuclear polioencephalitis, and even rarely Strumpell's cortical polioencephalitis. One or two of the few cases of probable polioencephalitis of the latter type have occurred in patients suddenly stricken with fever, loss of appetite, and other symptoms which may have been due to infection.

Priester has reported the case of a man fifty-four years old, who was taken with influenza in February, and in the beginning of March was seized with extremely violent headache which resisted all medication, and later the patient became deeply somnolent, remaining in this condition for four weeks; he could be aroused, but was apathetic and soon slept again. Reflexes and temperature were normal; pulse from 40 to 60. The patient had no paralytic symptoms, and slowly improved. His affection, according to the reports of the case, closely resembled Gerber's disease—paralyzing vertigo—although the latter is a disease of the warm weather. Tumor could be excluded by the absence of all local symptoms a year before the attack. The most probable cause, he believed, was a pathological process, involving the central gray matter of the third ventricle, which would bring the disease into close relation with polioencephalitis of the nuclear type. Dr. G. J. Kaumheimer, who translated this report for the *Review of Insanity and Nervous Disease*, December, 1891, observed an exactly parallel case which originated in April, and lasted into July before recovery took place.

That meningitis, either cerebral, spinal, or cerebro-spinal, occurs during the decline of the influenza cannot be doubted in the light of the evidence which has been presented by various observers, and particularly during the epidemic of the last three years. It is, however, comparatively rare concomitant or complication. Some of the facts adduced as proofs of the existence of meningitis, and some of the cases reported as examples of the disease, are clearly instances of improper interpretation. The intense cephalalgia and rhachialgia; the atrocious pains variously localized in the face, trunk, limb-nerves, muscles or joints; the vigilant delirium, with hallucinations and delusions, sometimes assuming great gravity; the intense vertigo, with or without nausea and vomiting—these and other well-known nervous manifestations which are so prominent in many cases at the initiation of the disease, are not necessarily evidences of meningitis, or even of meningeal hyperæmia. Rather they are due to an overwhelming toxæmia of the nerve centres and of the brain. Severe and terrible in character at first, they frequently pass away almost as rapidly as they came, which would not be the case if they were the evidences of a true meningitis. The enormous prostration which is left behind shows that the centres of nervous energy have been subjected to a depressing agency of great virulence, not that merely enveloping membranes composed mainly of fibrous tissue and blood-vessels have been congested or inflamed. No reason could be given why such congestion or inflammation should leave such results.

The reports of cases terminating fatally because of meningitis, and even the reports, personal or official, of the frequent occurrence of this affection, must be received cautiously and sometimes incredulously. They are only to be relied on when confirmed by autopsies, or when from observers who are accustomed to closely differentiate the meaning of nervous symptoms, and particularly of pain.

It may also be worth while at this point to refer to the somewhat frequent diagnosis of chronic meningitis as one of the sequelæ of the disease. This diagnosis is usually made because of the presence of more or less persistent pain in or on the head. Experience has led me to believe that this pain is usually neuritic rather than meningeal. Even deep-seated intra-cranial pain does not necessarily indicate meningitis. They may be due to neuritis, just as certainly as a pain in the hand or foot. The fifth nerve has an immense distribution within as well as outside the cranium, largely to the dura mater but also to other tissues and parts. It is a pathological possibility to have dural neuritis without a pachymeningitis, and this is the true explanation of some pains, both acute and chronic, which are present in other diseases as well as in influenza.

The form of meningitis most likely to be present in influenza is inflammation of the pia-arachnoid or soft membranes, now often designated lepto-meningitis. From observations, corroborated by autopsies, I know that this affection may exist without pain; while pain of varying degree of severity, and usually intense, is practically invariable in pachymeningitis. Lepto-meningitis, however, is not usually without pain and hyperæsthesia as symptoms, but it may be absent, and its presence or absence will depend upon the location, extent, grade, and complications of the meningitis.

While believing that these criticisms upon the sometimes hasty, and the too frequent diagnosis of meningitis in influenza, and indeed in many other infectious and febrile diseases, are just, and can be sustained, it remains true that a genuine meningitis, sometimes of a malignant type, may appear during the progress or closely following influenza. Some very competent observers have reported cases of this character, and in a very few instances the diagnosis has been confirmed by autopsies. The diagnosis should be made to hinge upon the signs and symptoms which would be satisfying as to the occurrence of meningitis from any cause; not alone on the presence of such phenomena as headache, vertigo, and vomiting, but on such more convincing manifestations as optic neuritis, and localized spasms or palsies, either cortical or of cranial nerves.

The fact that meningitis, and even the cerebro-spinal form, does occasionally occur in influenza, is by no means proof that this disease and epidemic cerebro-spinal fever are identical. It simply emphasizes the point with which I started, namely, that every infectious or poisonous agent introduced into the economy, may produce the same or similar pathological results in the nervous system. Largely according to the vulnerability, special or general, of certain tissues and organs, will be the preponderance of this or that form of so-called disease—for instance, of neuritis, myelitis, meningitis, cerebritis, or of combinations of these affections. All infectious and toxic diseases give neuritis as the most common acute or chronic inflammatory manifestation, although myelitis, cerebritis, and meningitis may occur. Even in cerebro-spinal fever, as I was perhaps the first to point out, multiple neuritis is a common complication; but the infection being virulent and overwhelming, we may not only have meningitis but even meningo-encephalitis, or meningo-myelitis, with all their malignant phenomena and permanently disastrous results.

Vertigo is another symptom, like pain, often improperly referred to meningeal or cerebral inflammation. It is sometimes due to such disease, but occurring in influenza it may arise from other causes, as, for instance, from extravasations into the labyrinth or other portions of the auditory apparatus.

Müller reports the case of a man, fifty years old, who, after influenza, presented great physical exhaustion. In a few weeks his mind seemed affected and he became somnolent, so that he could be roused only with difficulty and would then fall asleep again. In this respect the case was much like the one reported by Priester. Pain upon pressure was present over the vertebræ, the neck was rigid, the pulse was small and irregular, the skin reflexes were diminished, and the tendon reflexes were absent. In two weeks he began to improve. The author believed the case was one of spinal cerebro spinal meningitis, similar to that seen after infectious diseases.

Without entering into a discussion of their pathology or their peculiarities, I will briefly mention a few other forms of nervous disorder, occurring during or as apparent sequelæ of the influenza, examples of which have come under my personal observation. Convulsions have been reported by various observers, and in a few instances the convulsive habit has been established, and the patients have remained up to the time of report as cases of epilepsy. I have seen two such cases. Hystero-epilepsy and other grave hysterical phenomena have been initiated, or have recurred in cases in which the symptoms had long been dormant. Of local spasmodic affections I have seen no records, but one case of persistent clonic torticollis, with some pain and tenderness in the spinal accessory distribution, has been in attendance at the Philadelphia clinic. Two cases of facial paralysis, occurring immediately upon the heels of influenza, have come under my observation.

Many affections not of, but occurring in, the nervous system have been reported as complications or sequences of the influenza. These include such affections as apoplexy, due either to hæmorrhage, thrombosis, or embolism. One of my Polyclinic patients, a man thirty-seven years old, was attacked with influenza in January, 1890. He was not confined to bed, but suffered severely from headache, cough, and persistent general weakness, and in February he was suddenly paralyzed in the right half of his body, and completely aphasic. Well-marked cardiac murmurs were present, and the grippe in this and similar cases is probably causative by lighting up old endocardial trouble, or through the blood dyscrasia and general prostration which it leaves.

Various observers have reported cases of monoplegia and hemiplegia, without indicating the pathological character.

Recently, in consultation, I saw a typical hæmorrhagic apoplexy occurring in a case of influenza in a woman about sixty years old, who had previously been in fair health, and was not known to have had any disease of the kidneys or heart, although her vessels were somewhat atheromatous. Dr. S. S. Prentiss, of Washington, has reported three cases of cerebral apoplexy occurring during the progress of the influenza: one was in a man fifty-seven years of age; another in a man of eighty-seven; a third in a woman of sixty-seven. One of these was probably hæmorrhagic; the other two, from the histories, were probably from thrombosis. In cases of this character the infection of the disease acts to bring about an apoplexy both by the changes which it produces in the blood, by its effect upon cardiac action, and by the general debility induced. Such apoplexies might occur from other depressing causes; they are to be regarded not as phenomena, but rather as accidents of the epidemic.

Uræmic convulsions in patients suffering from chronic Bright's disease have been precipitated by the influenza, and it has seemed to me to have been active in lighting up lurking syphilitic diseases.

In one case of paretic dementia of somewhat irregular type, seen in consultation, the initial symptoms of the disorder were observed soon after recovery from a severe attack of grippe, the wife and friends of the patient in fact attributing the mental disorder to this attack. The probabilities are that syphilis was present, but latent, prior to the epidemic.

Purulent meningitis and brain abscesses have been somewhat frequently noted in connection with the numerous instances of purulent otitis media.

The relations of influenza to insanity have not received much attention from writers. Mairet, of Montpellier, has recently published a lecture on the subject delivered at his clinic for mental and nervous diseases. Rush, who is referred to by Mairet, speaking of the epidemic which lasted from 1789 to 1791, and particularly of the year 1790, mentions that several persons were stricken with symptoms of insanity, and that one attempted suicide; he also speaks of several having had hallucinations of sight. Bonnet, reporting on the epidemic of 1837, cites one case which was stricken with a furious mania as the result of the grippe; and Petrequin, referring also to the same epidemic, records several patients tormented by melancholy ideas, and states that four or five suicides were accomplished or attempted at the hospitals in Paris.

The following conclusions compress into small compass so much that it is valuable, with reference to the relation between influenza and the psychoses, that I cannot do better than quote them. They are reported as the conclusions arrived at by Dr. Leledy, and were presented to the Medical Society of London by Dr. Savage:

1. Influenza, like other febrile affections, may establish a psychopathy.
2. Insanity may develop at various periods of the attack.
3. Influenza may induce any form of insanity.
4. No specific symptoms are manifested.
5. The rôle of influenza in the causation of insanity is a variable one.

6. Influenza may be a predisposing or exciting cause.

7. In all cases there is some acquired or inherited predisposition.

8. The insanity is the result of altered brain nutrition, possibly toxic.

9. The onset of the insanity is often sudden, and bears no relation to the severity of the attack of influenza.

10. The curability depends on general rather than on special conditions.

11. The insane are less disposed to influenza than are the sane.

12. In rare instances, influenza has cured psychoses.

13. The insane may have mental remission during the influenza.

14. There is no special indication in treatment.

15. Influenza may lead to crimes and to medico-legal issues.

I can indorse from experience almost every one of these conclusions. With reference to the statement that no specific symptoms are manifested, it should be said that while this in a general sense is true, the most frequent type is a form of melancholia.

The cases of active insanity have been observed at the onset of influenza and during its height but more particularly during its period of decline and convalescence. The published cases have been recorded chiefly as instances of acute mania or melancholia. The commonest type of grippe mental disorder, as I have just stated, is a form of melancholia or lypemania; but as this not unfrequently assumes the form of melancholia agitata, it is often regarded as mania by practitioners not accustomed to differentiate the varieties of insanity. These patients are intensely depressed and emotional; they are filled with apprehensions of disgrace and ruin; they believe that they will never recover their former health; they are suspicious and delusional with reference to those who surround them; they are frequently unwilling to eat, or to rest, or to take medicine; and in some cases they have definite delusions of terrible character, for the most part hypochondriacal or religious. They are frequently plagued with the thought of suicide, and sometimes make successful or unsuccessful suicidal attempts. They have been deprived by the ravages of the disease of mental and moral stamina. In the majority of these cases, but not in all, some hereditary or acquired predisposition is present. While, however, the grippe usually gives us mental disorder of special type—a form of delusional melancholia—under special conditions it may be the starting point or exciting cause of any variety of mental disorder, as mania, paranoia, paretic dementia, hebephrenia, etc., but I can no more than glance at this phase of the subject.

The investigations of Church show that in each year in Cook County, Illinois, the epidemic of influenza has been attended by an increase in the number of proceedings for the commitment of the insane, which he believes cannot be explained by increase or movement of the population of the county.

Of the influenza occurring in the hospitals for the insane, I have had no opportunity for observation except in connection with the insane department of the Philadelphia Hospital. A great disproportion has been observed between the number of cases occurring among the women and the men. One hundred cases are recorded as having occurred among 460 female patients; and only three in a larger number of men. The disease did not prove particularly disastrous among these patients, only three deaths having occurred from pulmonary complications. The cases were, as a rule, not of severe type; less severe than in an equal number of sane patients.

K. Helweg has recorded the results and action of influenza in the Asylum at Aarhus, Denmark, and Pritchard has translated and summarized this paper for the *Review of Insanity and Nervous Disease*, for December, 1891. The account is of such interest that I will give it in detail: "The disease appeared in the asylum January 4, a few weeks after it had first been observed in the neighborhood. Out of 520 insane forty-one were so severely attacked that they were confined to their beds. The decease seemed decidedly contagous It spread with difficulty on account of the wards being divided from another. Eight of the twenty-five wards were spared altogether. When a ward would be invaded, the disease would rapidly run its course to proceed to another. The transmission of the contagion could be distinctly seen in the sick wards, where those stricken down in the other wards would bring the disease with them and transmit it to patients there. Seven patients had pneumonia. A relatively large percentage (6) died, of which four were from pneumonia. Among these was a man with such a severe cerebral disease that he must be excluded (the post-mortem results in the remaining five, which were women, were all more or less similar). The most essential results were extreme hyperæmia of the cranial bones and membranes, where the dura and the brain mass itself twice presented fresh and strongly vascular pseudomembranes with small hæmorrages as well. The veins and arteries of the thinner cerebral membranes were filled to bursting with blood; the large basal arteries were so filled with coagula that they stood out like cords, or those of an injected specimen. The brain substance itself was very hyperæmic, and its consistence increased. The average weight of these brains was about the ordinary of those of Aarhus. The writer also gives the history of the man mentioned, and those of three other cases where influenza could not be diagnosticated during life, including the post-mortem findings of a case of influenza in a (sane) nurse who died of pneumonia. Here also was great hyperæmia of the brain and its membranes, yet not so pronounced as in the insane cases. The writer has seen influenza accompanied by severe psychic symptoms. In a few cases, the condition resembled acute delirium, which, however, is transscent, and seems easily controlled by antifebrin. On the contrary, in two hopeless cases of insanity the disease had such a favorable and curative action that they may be regarded as cured. In both cases there was pneumonia.

The epidemic influenza has impaired the *morale* of the community. Lack of spirit in work, and an apprehensiveness with reference to health, business, and all matters of personal interest are abnormally prevalent The hysterical have become more hysteric ; the neurasthentical more neurasthentic. Hypochondria has displaced hopefulness in individuals commonly possessed of courage and fortitude. In brief, certain neuropathic and psychopathic features have been impressed upon the community. We cannot afford even to dismiss entirely from consideration the bearings of the epidemic upon the increase not only of suicides, but of other grave crimes.

Many interesting questions in connection with the treatment might be discussed ; but as the subject of treatment has been assigned in this discussion to Dr. Hare, I will only speak of one point.

The use in influenza of hypnotics, narcotics, sedatives, and motor depressants is a question of particular interest in connection with the study of the nervous and mental phenomena of the disorder. The views of practitioners and writers are here decidedly at variance. Serious mental and nervous complications or actual insanities occuring during influenza have been attributed to the too free use of such chemically powerful remedies, as phenacetin, antipyrine, antifebrin, chloral, bromides, sulfonal, and paraldehyde, and our older narcotics such as opium, hyoscyamus, conium, and cannabis indica, have also come in for a share of blame. Persisting conditions of nervous prostration, and chronic respiratory and cardiac neuroses, have also been charged to drugs. Undoubtedly such criticisms have some foundation, but it remains true that each of the remedies named has proved itself of some value in the treatment of influenza, and particularly of its nervous types. The enormous consumption of a drug like antipyrine is a practical argument both for and against its use. What Grasset has said of this remedy might with almost equal truth be said of almost any of the rest. "This agent," he says, "vaunted by some as a panacea against all manifestations of the disease, is considered by others a remedy absurd and irrational in all cases. The truth would seem to reside between these two extreme opinions."—*Cincinnati Lancet-Clinic.*

REMARKS ON DEATH DURING CHLOROFORM ANÆSTHESIA.

In giving a short description of the results of the Hyderabad Chloroform Commission I may remind you that the object of the research was essentially a practical one : it was to save people's lives, to use the words of his Highness the Nizam himself, to whose generous and enlightened liberality the Commission owed its existence. The Commission was originally suggested to the Nizam and his ministers by Surgeon-Mayor Lawrie, resident surgeon at the hospital of Hyderabad, and, like myself, an old pupil of Professor Syme.

The chief rule laid down by Professor Syme for administering chloroform was to attend carefully to the respiration, and take it as a guide for the continued administration or the suspension of the inhalation. This was the rule which had chiefly attracted Dr. Lawrie's attention, and upon it he founded his practice. Two other rules which Syme also laid down and which chiefly attracted my notice, were always to use the best chloroform and always to use plenty of it. Syme's utterance was brief and dogmatic, and he entered into no explanation of these latter rules, but I attempted to do so in a paper which appeared in the *British Medical Journal*, December 4th, 1875. I then attributed death during imperfect chloroform narcosis to the occurrence of shock, which was prevented by full anæsthesia.

In making their experiments the Commission had before them the questions how far death during the administration of anæsthetics was likely to be due to the action of the anæsthetic itself, and how far to the effect of shock from the operation. The question regarding the action of the anæsthetic also divided itself into two, namely, how far the lethal effect might be due to affection of the heart, how far to affection of the respiration, and how far to both. Before we attempt further to describe the experiments made by the Commission, I think it might be well to clear the way by mentioning that the time was too short to allow of the general action of chloroform or ether upon the tissues generally being investigated, and that we had to confine our attention to the methods in which death was likely to occur during surgical operations as usually performed. Previous researches had pretty well established that chloroform is a universal protoplasmic poison, and will destroy the contractile power of individual cells, of cilia and of muscular fibres, and, when injected into the artery of a limb, will produce rigor mortis in it, and make it stiff as a board. There was no question, therefore, of the power of chloroform to destroy any structure of the body if applied to it in sufficient concentration, nor do we attempt to deny that chloroform will destroy the contractility of the heart just as it would that of a voluntary muscle, provided always it reached the heart in sufficient concentration. But this was just the point at issue. If we drive chloroform into the trachea, or air very heavily loaded with chloroform vapor into the lungs by artificial respiration, it will be absorbed in sufficient quantities to paralyse the heart, but the question is an entirely different one if the chloroform be administered in the usual way, by inhalation. Our contention is that when chloroform is administered in this way it acts more readily upon the respiration than it does upon the heart, and from the respiration failing first, a sufficient quantity to paralyse the heart is never conveyed to it, and that therefore death from chloroform inhalation is respiratory death, death beginning with the respiration and not with the heart.

It will be convenient to take up, first, more fully the question of death fron the anæsthetic, by which I mean death due to the action of the anæsthetic itself, and, later on, to discuss the question of death during anæsthesia—that is, death from operation or other causes than the anæsthetic, sometimes in spite of its action, and at other times, perhaps, aided by its action.

The experiments made by the first Chloroform Commission showed that in dogs subjected to its action the respiration invariably failed before the circulation. Those made by the second Commission confirmed this, but they brought out a new point —namely, the rapidity with which the heart fails from the combined action of asphyxia and chloroform. This action is of two kinds: First, asphyxia during chloroform stops the heart's action through the vagus nerve. This is the action which was looked upon by the Glasgow Committee as so dangerous, but which, as Dr. Bonfort pointed out, is rather a safeguard, tending to prevent the too rapid conveyance of chloroform vapor from the lungs to the medulla. The second action of asphyxia and chloroform combined is a paralysing one upon the heart itself. If an animal inhales pure chloroform vapor with free admixture of air its heart will go on for a long time—in fact, we might say, almost indefinitely. If an animal is asphyxiated, either by stoppage of the respiratory movements or by obstruction to the free entrance of air into the lungs, notwithstanding the continuance of respiration, the heart will go on for a certain time, but in the course of a few minutes will stop. This stoppage, however, occurs very much more quickly if chloroform be administered at the same time as an animal is asphyxiated, so that we may say that the great risk of death from the action of chloroform lies in the occurrence of asphyxia during its administration.

I must here draw attention to what I believe to be a grave fallacy in some experiments of my friend Professor H. C. Wood, mentioned by him in his Address on Anæsthetics at the Berlin Congress. A tracing which he there showed seemed to indicate most clearly that the action of the heart failed long before the respiration. I here reproduce, as nearly as I can remember it, the general effect of this tracing. In it we seem to see clearly a stoppage of the beats of the heart while the blood pressure sinks, and yet the respiration goes on freely. Now I believe that the stoppage of the heart in this tracing is only apparent and not real, and that it is, in fact, due to a small clot of blood in the cannula which connects the artery of the animal with the kymograph. I have had many such tracings, and my experience has led me, whenever I got them, to disconnect the cannula and remove the clot. Had there been no clot, the stoppage of the heart would have caused the blood pressure to fall abruptly instead of gradually, as shown in the tracing exhibited by Professor Wood.

In comparing the action of ether and chloroform, we found that the great points of difference between them were, first, that ether was a less powerful anæsthetic than chloroform: and, secondly, that while neither of them paralyses the heart when giving plenty of air, the heart would continue to beat much longer during asphyxia when combined with ether than when combined with chloroform. Chloroform is thus a more powerful agent, and, as I have already said on a previous occasion, it is like a sharp knife in the hands of the surgeon as compared with a blunt one. It is more efficient for good if properly handled, it is more powerful for evil if misused.

Shortly before the Commission began its labors a most unfortunate case of death occurred in Edinburgh during anæsthesia from nitrous oxide—an anæsthetic which is usually supposed to be absolutely free from danger. The report of this case led the Hyderabad Commission to suppose that death in it was due, not to the anæsthetic, but to asphyxia from tight lacing, and accordingly they made some experiments to test the effect of compressure upon the chest and abdomen. These experiments caused a storm of indignation amongst the antivivisectionists, who falsely stigmatised them as horribly cruel, whereas, in truth, there was absolutely no cruelty about them. The only thing that was done was to imitate upon monkeys already under chloroform that compression of the chest and abdomen which is daily exercised at the bidding of fashion by thousands of women in this country without chloroform. The Commission found, as was to be expected, that tight lacing greatly increased the risk of death from chloroform on account of the imperfect respiration and consequent tendency to asphyxia to which it gave rise.

The second part of the labors of the Commission consisted in attempting to determine the effect of shock as a cause of death during chloroform inhalation. In a paper published in the *Practitioner* I have attempted to distinguish between shock and syncope, my idea being that syncope is due to temporary stoppage of the heart's action and may be rapidly recovered from, while shock is due to paralysis of the abdominal vessels and is a very grave and persistent condition. Many attempts were made to produce syncope in the animals experimented upon by raising the head, by attempting to stimulate the vagus reflexly or even by direct irritation, but all these experiments seemed to show that stoppage of the heart's action through the vagus was not a dangerous condition. We also attempted to produce shock by a blow upon the intestine or by such an operation as avulsion of the toe nail—an operation which has frequently been followed in man by fatal results. In these attempts, however, we were unsuccessful—Lauder Brunton in *Br. Med. Jour.*.

THE PRACTICAL DETAILS IN THE TREATMENT OF CROUPOUS PNEUMONIA.

A consideration of the treatment of acute croupous pneumonia renders it necessary, first of all, to define this form of pneumonia. Acute, croupous, or lobar pneumonia is a disease which is characterized by a well-marked beginning, course and termination in the great majority of cases. It is ushered in with a chill, fever, pain, dyspnœa, accelerated respiration and slow pulse. Among the physical signs are weakened and roughened respiration, prolonged expiration, or bronchial respiration, crepitation and dullness. The pathological changes are also typical. First, there is the stage of congestion ; second, there is that of red hepatization ; and third, there is that of gray hepatization, or of resolution. During the first stage, the capillaries which surround the alveoli of the affected part dilate and become overdistended with partially stagnant blood. Indeed, the blood vessels seem to be in a semi-paralyzed condition.

Croupous pneumonia is a disease, therefore, which shows its first visible manifestations in the capillary circulation of the lung. In the course of a short time, the disease shifts or extends its sphere of activity. The overburdened blood vessels are no longer able to hold their contents, the serum, with leucocytes and red blood-cells, exudes through their walls and collects in the cavities of the air-cells. At first, this exudation is in a fluid condition, but when it becomes mixed or comes in contact with air, it coagulates, and in this way the alveoli are filled with a semi-solid substance resembling the dark-red color of the liver ; and hence this stage is known as red hepatization. The active stage of croupous pneumonia is now completed so far as the local process is concerned, and that which takes place subsequently is merely the result of a chemical disintegration of the exuded material. Albuminous material, no matter where it collects in a mass, as it does here, must decay sooner or later. Pathological chemistry teaches us that a quick and moist degeneration of this sort takes on the form of fatty degeneration ; that a slow and dry degeneration assumes the nature of a cheesy decay ; that a still slower and drier process ends in calcareous degeneration. Now, it so happens that the exudation of croupous pneumonia undergoes a fatty degeneration after it has lodged in the air-vesicles for a period of from three to five or six days and even longer, and while this takes place the color of the affected part is changed from red to gray, and hence is called the stage of gray hepatization, also called that of softening or of resolution.

In the first stage there are found roughened and weakened respiration and generally a crepitant râle, together with some degree of dulness in the affected spot. In the second stage, or that of red hepatization, the crepitation disappears largely, and, perhaps wholly, while prolonged expiration or bronchial respiration and decided dulness take its place. In the third stage, or that of resolution, crepitation re-appears, and is followed by moist râles of all sorts.

On the other hand, it is very important to have a clear and distinct idea of catarrhal pneumonia, in order to distinguish it for therapeutic purposes from the croupous form. Catarrhal or lobular pneumonia, as it is often called, comes on more gradually and generally in the form of bronchopneumonia—*i e.*, a catarrhal affection extending from the bronchi into the alveoli. The pathological changes are also typical in this affection. They chiefly consist in a proliferation and accumulation of epithelial cells within the alveolar cavities. Alveoli and groups of alveoli, in different lung areas, become filled in this manner, and it is very rare to find a whole lobe or lung entirely involved. The physical signs which accompany this form of pneumonia consist usually of dullness, crepitation, sibilant and mucous râles, together with prolonged expiration and bronchial respiration. The crepitation, when once present, is of a more permanent character than in croupous pneumonia. In fact, all the physical signs are less variable than in the latter.

That which is of the greatest local interest here are the facts that croupous pneumonia, so far as the lungs are concerned, is primarily an affair of the pulmonary capillaries, and that the implication of the alveoli is a secondary matter; that catarrhal pneumonia is primarily a catarrh of the alveolar epithelium; and that hence the former is an *extra-alveolar*, and the latter an *intra-alveolar*, disease. It appears very much as if the sudden distention of the pulmonary circulation in croupous pneumonia is due to a general loss of vasomotor nerve-tone in the affected part, and that hence the real source of the disorder is to be looked for rather in the nerve-supply than in the lung itself.

Another question of intense interest from a therapeutic standpoint is whether croupous pneumonia is a self-limited disease in the same sense as is understood in smallpox, measles and other well-defined and self-limited diseases. If it is self-limited, then all you can expect to do is to stand by and watch the symptoms, without any thought of restraining or controlling the disease. Smallpox goes through a series of well-defined steps, none of which are retraced during the same attack, while pneumonia invades a certain tract of lung tissue, and in a day or two, or longer, extends its territory. Given a deposit of exuded material in the air-cells, the time necessary for the lung to free itself of this product is governed greatly by the number of times the exudation imposes itself on new ground. This is not true of any infectious or self-limited disease. There certainly are relapses, as in typhoid fever, for example, but it cannot be said, with any degree of truth, that in such instances the disease extends into fresh tissues, but rather that it repeats its assaults on tissues which had been previously invaded. To me it seems very probable that the progress and intensity of acute pneumonia are controlled by the degree of lung-resistance which is offered by the constitution to the spread of the disease, and that it is not self-limited in the true meaning of that term.

The therapeutic indications in this disease are: (1) A circumvention of the inflammatory process; (2) a reduction of the temperature; (3) a toning up of the pulmonary and cardiac innervation; and (4) a support of the constitution.

Circumventing the inflammatory process.—It makes very little difference from a therapeutic standpoint whether we regard the pulmonary stasis as the result of increased blood-pressure or of a semi-paralyzed condition of the blood vessels. For practical purposes, it is enough to know that the lungs are over-charged with blood, which will, sooner or later, flood the whole implicated area with some of its constituents, and that we must aim to relieve this condition. Now, what measure or measures will accomplish this end? It may be said that the "old and well-tried" method of venesection is a remedy which is highly recommended for this purpose. Whether it succeeds is indeed questionable. Venesection is a keen-edged sword, and, while its employment may cut short some cases of pneumonia, it has also aggravated some, and accomplished no good in many others. From what has been said, it is evident that, if it is ever to be employed, it is only applicable in croupous and positively forbidden in catarrhal pneumonia. Local bleeding, such as cupping or leeching, is frequently employed with advantage over the inflamed lung.

Croupous pneumonia, being a disease, however, which tends to undermine the vitality of the patient more quickly than any other acute disease, with the possible exception of cholera and yellow fever, it seems, indeed, a serious matter to advocate a treatment, which, if it fails to check the disease in its incipiency, certainly enhances the pathological trend of the disease and aids in defeating the very end for which it is employed. For the purpose of counteracting the spread of the pneumonic process, I have, therefore, lately applied rubber bags filled with ice over and around the inflamed lung area, and, so far as I can see, with rather favorable results. At least, I think this is a measure which bears repetition.

Aconite and veratrum viride are also useful in reducing the pulmonary hyperæmia. Of the two I prefer aconite, because its physiological effects can be produced with greater certainty and safety. It must be given with effect and it is well to begin with drop doses of the fluid extract every half hour, or two drops every hour, until the pulse becomes soft and easily compressible.

Reduction of fever.—All the depressant measures which have been mentioned—viz.: local bleeding, local application of ice, aconite and veratrum viride—have a strong antipyretic action; but over and above the influence of these agents, steps must be taken to depress the pyrexia in a more direct manner. This is accomplished by applying ice to the head and neck, by sponging the body with cool water, adding to the latter alcohol, bay rum, vinegar, or liquor ammonia. Quinine may be administered in ten or twenty-grain doses three or four times a day. Binz has shown that this alkaloid exerts an inhibitory influence on the migration of leucocytes—a process which is actively going on in pneumonia—and it may therefore serve the double purpose of diminishing high temperature, and of restraining undue cellular activity. It is possible, however, and indeed it is probable that quinine manifests it febrifuge power by checking cellular metamorphosis. Phenacetin, antifebrin and antiyprin, the first two in four grains, and the latter in from seven and a half to fifteen-grain doses, every four hours, are productive of excellent results, and one of these agents should always be employed.

Elevating the nerve tone.—Whatever the precise relation may be which exists between croupous pneumonia and the nerve-supply of the lung, it is very certain that the former process is always accompanied by grave disturbance of the general nervous system, and that those therapeutic agents which have a special action on the pneumogastric nerves and the respiratory centre also exert a beneficial action on this disease. Among the agents which possess such a selective affinity, strychnine, digitalis and atropine rank the highest. Strychnine, on account of its local and general nerve-action, should be preferred, and should be given in doses ranging from one-fiftieth to one-thirtieth of a grain every four hours. Digitalis should only be employed in the form of leaves, and in doses from half a grain to a grain, and atrophine in one-six-hundredth-grain doses every four hours. Quinine in small doses, and alcohol in doses which, in their effects, fall short of the point of narcotism. always tend to enhance the vigor of the body. This point of alcoholic tolerance varies very much with the course of the disease : for when the latter is the most aggressive, toleration by the body for alcohol seems to be greatest, and to be gradually diminishing as recovery sets in. Practical experience teaches us that alcohol may be given in very large doses, say in one, two or three, or even four tablespoonfuls every hour or two.

Relief of dyspnœa.—Dyspnœa is nearly always present; sometimes it becomes so urgent that marked cyanosis supervenes. If this is not alleviated by the measures already recommended, oxygen must be administered by inhalation. This gas is readily obtained or made, and is given to the patient out of a bag in its pure state, or diluted with a varying proportion of atmospheric air. When there is great restlessness with the difficult breathing, the admixture of twenty parts of nitrous oxide to eighty parts of oxygen has a very quieting effect on the patient. This combination, or the oxygen alone, must be given as frequently as the case demands it.

Nutrition.—Nearly all that has been done so far for our patient is only of temporary service, and only tends to bridge him over the present emergency in case the strength which he possesses holds out against the disease. It is our duty, therefore, to support the patient's resisting power, and to give him material wherewith he is able to repair and rebuild the textures which are rapidly disintegrating in his body. In other words, we must feed him with substantial nourishment, and feeding here implies the use of food which concentrates a large amount of nutritive material in a small bulk, and which requires a small amount of digestive energy on the part of the stomach and intestinal tract. Such food is readily provided in the freshly expressed juice of beef muscle, of oysters, and of clams.

These foods are prepared in the following manner: Beef, preferably taken from the round steak, is cut in pieces of the size of a walnut and placed in a pan and held over the fire momentarily for the purpose of broiling the surfaces. Stirring will accelerate the process. The whole is then placed in a large-sized beef-press, which separates the juice from the fibre. This juice, divested of fat and well seasoned, is to be taken cold in one, two, three or four tablespoonful doses every three or four hours. In the case of oysters and clams, heat is applied and the juice expressed in the same way, and the latter is taken cold and seasoned, but in somewhat smaller doses. These juices contain the very essence of fresh nourishment, and are of easy administration to the most fastidious of patients. I have also for a long time employed these juices in feeding phthisical patients, and can confidently say with the happiest advantages. Beef meal is another excellent albuminous food to be employed here. Next in importance comes milk, which is to be given in tumblerfuls, every three or four hours with or without brandy or whiskey. With the exception of an egg, occasionally in the form of milk-punch, no other food is necessary until convalescence is established.

Rest and sleep.—It is very important to counteract restlessness, sleeplessness and delirium. If the remedies already advised fail to accomplish this, morphine, hyoscine, chloral or codeine may be employed. Hyoscine may be given hypodermically in $\frac{1}{100}$ grain doses at bedtime, and morphine may, indeed, be administered in the same way throughout the course of the disease, in $\frac{1}{24}$ or $\frac{1}{16}$ grain doses every four hours, with admirable effect.

General management.—Do not disturb the patient with frequent physical examinations, unless these are absolutely necessary. Make your diagnosis, lay down your general plan of treatment at the outset, and follow out the latter with as little variation as possible. The patient must not be worried by administering food or medicines too frequently. After the nature of the local applications has been decided on, I prescribe the following :

R—Phenacetine or antifebrin . . . gr. lx.
Quininæ sulph. . . . .
Pulv. digitalis . . . . . . āā gr. xx.
Strych, sulph. . . . . gr. $\frac{1}{2}$.
Atropin, sulph. . . . . gr. $\frac{1}{30}$.
Morph. sulph. . . . . gr. i. M.
Ft. capsul. No. 20.

Sig.—One capsule four times a day.

If aconite is administered it must be given in frequently repeated doses in the early stages of the disease. The albuminous juices of beef, oysters and clams, already mentioned, and the milk, may be alternated with the capsules every two hours during the daytime. Throughout the night the food is to be given at least twice, one of which times must be early in the morning. Brandy or whiskey must, of course, be administered as often as the case requires. Any extra antipyretics, such as quinine, antipyrin, or whatever may be needed, are subject to the same rules in their administration. Sponging of the body entails such little inconvenience to the patient that it may be carried out at reasonably frequent intervals. The temperature of the chamber must be maintained at a uniform rate, the air kept pure, and all noises excluded as much as this is possible. Liquid discharges from the bowels, which frequently occur at the crisis period, as well as at other stages of the disease, should be carefully disinfected.—T. J. May, M.D., in *Univ. Med. Mag.*

DYSMENORRHŒA AND ITS TREATMENT

Of the many ills which the gynæcologists of today are called upon to treat, none, perhaps, has caused more controversy, nor been attended with such varying results, as the subject of this paper. And I have noticed, as time goes on, that the question of treatment is still unsettled. Nor is it my purpose to recommend any one course of procedure to the exclusion of all others, each case being a well recognized law unto itself. But so satisfactory have been my experiences with the treatment herein described, that I have ventured to hope a *résumé* of my plan may be of interest to you ; if so, the office of this article will be accomplished.

We have been taught that dysmenorrhœa is a *symptom* ; but, oftentimes, it will be solely for the relief of this symptom that patients come to us—as they suffer in no other way, and it is for the cure of just such cases, I have practised the treatment as described.

It has been said that any condition, whether of a general or local character, which interferes with the escape of the catamenial discharge, gives rise to pain at such times, of greater or less degree, and it is for the relief and cure of this pain that our services are sought.

On examination we find one of these conditions exist :

1st. A chlorotic or highly nervous temperature (and I may mention that they are apt to be closely associated).

2d. An unhealthy uterus.

3d. Inflamed ovaries.

Which of these exist, is our first business to determine. The pain attending sudden cessation of the menstrual flow from cold, wet feet, etc., comes under the head of amenorrhœa rather than dysmenorrhœa, and as it usually disappears on the reëstablishment of the function, I shall not consider it here. Generally, too, the *location* of the seat of pain will give us a clue to its cause, and is to be sought for.

In the consideration of those cases due to the *first* variety, they will be found the easiest of all to diagnose, because the causes are in plain sight of every observing man. But the successful treatment of them is often most difficult, especially among the higher classes of society ; for the demands made upon our women of to-day by close application to study in youth, and by social occupations later, accompanied as they are by improper rest and light dressing before, during and after the menstrual period, are serious obstacles in the pathway of good results. Should these be carefully attended to, however, and general treatment faithfully carried out, a cure of this most distressing condition is almost certain, as illustrated in the following case :

Miss M., aged twenty-six, single, came to my office last November, suffering from severe pain in pelvis and back, headache and general malaise. She had not noticed any menstrual flow till she was seventeen years of age, but having studied very diligently while in school, attributed her amenorrhœa to that fact, as her flow made its appearance after her graduation in that year ; since then, she has been regularly ill every twenty-eight days, and continued so four to five days. Four months before I saw her, sudden family affliction had come upon her just previous to her catamenial period, which was accompanied by vertigo, "fainting fits," as she described them, and agonizing pain. The flow was nearly normal in amount, but the suffering was so severe that her medical attendant was obliged to resort to hypodermics of morphia for her relief. Her trouble had preyed upon her mind to such an extent that her naturally nervous and chlorotic condition was greatly exaggerated, and her sleep and appetite much impaired. Each period since then had been accompanied by great suffering, growing markedly worse each suceeding month. On examination, I could find nothing abnormal in either uterus or ovaries. I accordingly advised a course of treatment consisting of calisaya, iron, and syrup of hypophosphites. One week before her expected period, I administered daily treatment with the faradic current, as strong as she could bear it ; the electrodes were on the abdomen and under the lumbar region, and each *séance* lasted eight minutes ; the flow made its appearance with only a moderate amount of pain. I thought then that had I administered electricity as described, every other day during the whole month, my results would have been better, and accordingly did so the next month, being rewarded by a reëstablishment of the normal flow and without more than a sensation of uneasiness, never amounting to actual pain. Since then, she has continued regular, her appetite and desire for sleep have returned, and she suffers little inconvenience from her periods, although the condition of her nerves leaves much yet to be desired.

In considering dysmenorrhœa due to an *unhealthy uterus*, I may define it as being caused by any condition of that organ whereby the passage of the ovum through its canal is rendered abnormally difficult. These conditions are many, chief among them being stenosis of the canal, congenital, or accidental, anterior, posterior, and lateral, displacements ; mural and sub-mucous fibroids ; polypoid growths ; metritis and endometritis. In my experience none of these conditions have been permanently relieved by internal medication, and, at best, I could but alleviate my patient's sufferings by anodyne—a practice which must be most closely guarded against, lest we then and there sow the seeds of a habit of dependence on them at such times, and which is more than likely to end by making them morphine habitués. Some good may be done by local application of remedies in cases of metritis and endometritis, although so satisfactory have been my results when I have resorted to the battery, that I have now nearly abandoned any other treatment, until I am assure that different means should be tried. The holding in place of flexed or verted uteri by pessaries, will also accomplish much ; and for stenosis of the canal or os, as well as in cases of polypi, operative procedure is indicated. But with patients suffering from either mural or sub-mucuos fibroids, as well as those where metritis and endometritis are the causes of dysmenorrhœa, nothing has given me such universally good results as the use of the galvanic current, when applied according to the directions of Apostoli. His method of administration of electricity for fibroids, is too well known to require extended notice here under this title ; and for the treatment of inflammation of the uterus or its lining membrane, his procedure is as follows : Having thoroughly douched the vagina with an antiseptic solution, and inserted the forefinger of the left hand within the vagina and the os uteri found, the intra-uterine electrode should be carefully run along the finger and introduced into the uterine canal up to the fundus. I cannot lay too much stress upon the importance of exercising the utmost care and gentleness in this procedure, as any rough handling would be apt to not only increase the existing inflammation, but cause a peri-uterine one. The clay pad having been placed upon the abdomen over the fundus and the negative conducting cord connected with it, the *positive* cord should be attached to the electrode *in utero* and the current turned on so gradually that no shock will be felt by the patient during the increase of it, which may be accomplished by means of a rheostat. The strength of the current should depend upon the resistance of the skin and the sensibility of the patient--never using more than the inflamed organ can bear with moderate discomfort, and never causing severe pain. I have usually been able to use 30 milliampères at first, for a *séance* of three to five minutes, and have increased it as well as the length of time, at each successive treatment. The current should then be very slowly shut off and the electrode withdrawn, the same gentleness being used as upon its introduction : after which, if the patient can rest for a time, it will be to her advantage. The good results of this proceeding if done in this manner are a surprise to those accustomed to the older methods of iodine, carbolic acid, etc.

As for dysmenorrhœa due to inflamed ovaries—it may be recognized by its presence some days before the flow is established and its diminution after it has made its appearance. A vaginal examination reveals exquisite tenderness on pressure, generally accompanied by a sensation of nausea. For years it has been thought that treatment availed nothing for its relief, and so fixed has the idea become, that the patient has been hurried to the operating room and the organs removed with the idea of saving unnecessary suffering. In some few cases, it is true, operation must be eventually resorted to, but the number of these, I am thankful to say, is being rapidly reduced, and ere long they will be the great exception if the results of others who use the current of electricity in such cases be as happy as mine. When the grave questions of future maternity, prolonged convalescence, and risk, are taken into consideration, surely our patients will not blame us for making an honest effort to cure their dysmenorrhœa by treatment before consigning them to the knife. And when I say an *honest* effort, I do not mean two or three trials of a method about which little is yet known, but I mean the same endeavors in their behalf that would be extended to an orchitis before amputation or an iritis before removal of the inflamed organ. For many months past, I have made a special study of the cure of such cases, both in my clinic at the Woman's Hospital and in private practice, and when I have had sufficent time allowed me to make a thoroughly complete test of the following method, I have rarely regretted my efforts, nor has the patient. My procedure consists in placing a flat, pliable electrode over the inflamed ovary and a similar one beneath the lumbar region as the patient lies on her back. They are then connected with a faradic battery and a current as strong as can be borne without pain is turned on gradually, the *séance* lasting eight minutes. After a few treatments, it will be found that a ball electrode connected with the positive pole can be tolerated against the ovary, (the negative being on the abdomen), and a current of tension used thrice weekly. I apply it five minutes daily for a week previous to the expected flow, and have rarely been disappointed in its prompt and painless appearance and eventual cure of the case. During the course of treatment, complete rest and freedom from pressure are to be desired, and coitus is to be prohibited. I have also endeavored to use external applications of Churchill's iodine, but was obliged to discontinue it as it rendered the skin intolerant of the negative pole, thereby impairing the value of the treatment.

Of course, vaginal stenosis and occlusion, as well as imperforate hymen are to be treated surgically, for other treatment of those conditions is useless.

In conclusion, let me state that I make no claim of having found electricity a panacea for all conditions herein described; but I *do* claim results by its use which I have been unable to attain by ony other means; and its *safety* and *ease of application*, as well as its lack of terror to the patients themselves in comparison to operation for the relief of their sufferings cannot fail to commend itself for a fair trial to those who seek the advancement of conservative gyæcology.—*New York Journal of Gynæcology ang Obstetrics.*

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Treatment of Catarrh of the Prostatic Urethra.—Some recommend the daily passage of metallic bougies. Begin with an average size, and increase until the full size of the urethra is reached, which can readily be determined by Dr. Otis' plan. After the urethra has acquired a tolerance of the instrument, it is recommended to depress the handle of the instrument when in the bladder, and let it remain from five to twenty minutes; it appears the instrument acts favorably by pressure. Under this plan of treatment some improve, but are not cured.

Another mode more successfully used is the daily injection of a 1 to 15 per cent. solution of sulphate of zinc deep down into the urethra. Never use over eight or ten drachms of the injection at one time, and have it of the temperature of the body. After four or five such applications in ordinary cases, the malady begins to improve, but in some cases no improvement is apparent. Then stronger injections or cauterization must be used by means of a Dittel's *porte remède*, or an Ultzmann's urethral dropper, depositing only a few drops of the solution in the prostatic urethra. Five-per-cent. solution of nitrate of silver is generally used. Some surgeons use the cold sound, or psychrophor of Winternitz. The temperature of the water circulating in the hollow sound must be about 75° F. to begin with, and, at each subsequent sitting, which should not be longer than ten to twenty minutes, the water is made cooler, until fifty or forty-eight degrees is reached. Some derive much benefit by the use of warm or even hot water passing through the psychrophor. Rectal enemata of warm water seem to act well as an accessory to the other plans of treatment. Cocaine, four-per-cent. solution, has been used in catarrh of the prostatic urethra with good results, often resulting in a speedy cure without any other than the ordinary constitutional treatment, which consists of the administration of alkaline diuretics to neutralize the urine, and of tonics to build up the system. The cocaine drives the blood out of the inflamed tissue, and tends to lesson the inflammation, and greatly diminishes the pain. The application of cocaine is made like that of nitrate of silver solution—only it is made oftener—as much as three times a day. Medicated urethral suppositories have been used by many, but with only limited success. Electricity has been used with great benefit, and it is predicted that this agent, if the proper electrodes are used, will be the only reliable remedy for catarrh of the prostatic, as well as other portions of the urethra. The last resort, when all other remedies are of no avail, is one of the cystotomies, which drains the bladder by a new channel and gives rest to the chronically inflammed urethra, thereby tending to restore the inflamed tissues to their normal condition.—*Virginia Med. Monthly.*

Causes of the Remote Results of Phimosis.—The remote results produced by phimosis can be readily understood by studying the anatomical distribution of the nerve supply to the penis. The sympathetic nervous system, with its delicate make-up, and its peculiar susceptibility to irritations of any nature, certainly finds a locality in this organ where its singular function is demonstrated: The inferior hypogastric or pelvic plexus, situated as it is by the side of the bladder and rectum, has free communications between the second, third, and fourth sacral nerves, and liberal communications with the internal pudic, a branch of the lower part of the sacral plexus. After uniting with the pudic, the two are distributed to the corpus cavernosum and spongiosum, urethra, and in fact to all parts of the organ. The knowledge of this fact is quite sufficient to explain why any pathological irritation at the periphery should be followed by a similar condition in a remote organ, if long continued, supplied by the same set of nerves. The pudic nerve, taking its origin from the sacral plexus, distributes its branches to the urethra, skin, and muscles of the penis. The sensitive nerves from the mucous surface of the end of penis interlace with the motor nerves supplying the bladder, and any irritation applied to the periphery may be followed by a muscular contraction of the bladder. This is only the reverse of the condition existing in stone in the bladder. The moment the stone comes in contact with the irritated mucous membrane of bladder when empty, it produces a contraction of its muscular layer, and the pain is felt with greatest intensity in the glans penis. It is the friction of the nerves upon the surface of glans penis which brings on the emission and erection associated with sexual intercourse or masturbation by exciting associated muscular contraction of the muscles of penis and those concerned in ejaculating the semen. In infants the inhibitory action of the brain over the spinal cord is still in abeyance, and reflex action is more uncontrollable. In these cases there is an exaggerated sensitiveness of the senso-motor centres. This condition is one favorable to the full manifestations of remote evil effects of a constant peripheral irritation.—*Kansas Med. Journal.*

CHLOROFORM AS AN ANÆSTHETIC IN OPERATIONS ON THE NECK.—In a paper on the surgical treatment of tuberculous cervical glands, Mr. Edward Owen, the well-known surgeon, makes the following remarks in support of his recommendation that a special anæsthetist should be engaged when anything like serious difficulty is to be anticipated: "In the whole course of my experience I have never met with an instance in which any child died from the administration of chloroform. But, so far as my recollection serves, the two instances in which I have seen this calamity most nearly approached, were in severe operations for the removal of tuberculous glands from the neck. In each instance I thought the child was actually dead—in spite of treatment by hanging it up by the feet, so as to stimulate the anæmic brain, and at the same time resorting to slow and rhythmic compression of the chest by way of artificial respiration. In one of these cases the father, a medical man of the Edinburgh school of medicine, was administering the chloroform to his child. Acting on the Scotch plan, he was not watching the pulse during the operation; but I must say that he behaved splendidly during the crisis. In the other case the failure of the pulse was noticed by the family medical attendant, who was present during the operation, the anæsthetist having contented himself with watching the respiration only. What it may have been with those friendly associates of the experimental physiologist, when under anæsthesia, the monkey, the dog, and the guinea-pig, I know not; but I am sure of this, that in the human species the pulse is terribly apt to fail before the respiration. And I fear that the teaching of the Hyderabad Commission—that only the respiration need be watched—will be accountable for much faulty administration of chloroform with the inevitable result. It is more than possible that the sudden syncope of these two children during the operation may have been owing to the serious disturbance to which the lungs, vessels, and nerves beneath the base of the skull were necessarily subjected during the removal by enucleation or scraping of adherent masses of gland. —*Practitioner.*

THE INFLUENCE OF THE CLIMACTERIC UPON FIBRO-MYOMATA.—Müller (*Archiv. f. Gynak.*) has made a careful study of this subject, based upon 109 cases. He found that while in many cases the tumor evidently diminished in size after the menopause, in nine instances it was clearly proved that the neoplasm continued to grow; such an increase in size was noted in women aged fifty-six and seventy-nine respectively. He infers that it is not safe to trust too much to the curative influence of the menopause. In opening the discussion Werth took occasion to differ from Hofmeier regarding the effect of castration. The removal of the ovaries had, he believed, a direct atrophic influence upon the tumor. When menstruation ceases, its vascular supply is diminished, but if the hæmorrhages continue atrophy does not take place. Tait's statements on this question were valueless. Benckiser stated that in examining a fibroid uterus removed three months after castration had been performed, he found the same atheromatous changes in the vessel walls which were so often observed after the climacteric. This was a form of obliterating endarteritis which Thoma had described as a result of extensive arrest of the capillary circulation of an organ. Veit said that he had seen large myomata increase in size in elderly women. He did not expect retrograde changes to take place in the tumor before the age of fifty or fifty-four. Progressive increase of the neoplasm after the climacteric must be due to some unusual source of blood-supply. Fritsch had found that the occurrence of both the artificial and the natural climacteric arrested the growth of the tumor. If it continued to grow, it was usually due to cystic degeneration of the neoplasm.—*Am. Jour. Med. Science.*

THE ETIOLOGY OF CROUPOUS PNEUMONIA.—Modern medical research has devoted considerable attention to the study of the etiology of disease. In the department of bacteriology discovery upon discovery, indicative of the causal relation between microörganisms, and disease, has been made and verified. In the enthusiasm and excessive zeal which attended the promulgation of a new and promising doctrine, the indifferent student is apt to ignore important accessory conditions in a desire to reach a preconceived ideal.

At this day no unprejudiced mind will attempt to controvert the validity of the germ-theory of disease; but we have not done in accepting the principle which the theory implies. Something more than a germ is requisite for the production of disease—not that the germ is a mere concomitant, but that, while perhaps the most important, it is but one of a number of elements, the association of which is the essential factor in the determination of a definite result; the soil must be fertile and the conditions propitious for growth and develópent. How else explain the immunity of some and the infection of others exposed to like influences under conditions apparently similar? Though we may never be able to explain the mode of action, it is well to recognize this association of etiological elements; while not detracting from the importance of the part played by microöganisms in the production of disease, we must not ignore or underrate the significance of other factors.

In a study of one hundred cases of uncomplicated croupous pneumonia, Brunner (*Deutsch. Archiv. fur klin Medicin*, Hefte 1 and 2, 1891) was able to determine that the disease is more common in males than in females; that most cases occur in the third and fourth decades of life; that those who lead active lives in the open air are predisposed; that the right lung is more commonly involved than the left; that the onset usually takes place in the morning with a chill; and that the disease is most prevalent in winter and in spring. Careful comparative observations upon the mean temperature, the mean humidity of the atmosphere, relative and absolute, the mean barometric pressure, as well as upon other meteorological conditions, in conjunction with the number of cases of pneumonia observed at different periods, revealed the fact that most cases occurred when the temperature was low, the absolute humidity slight, the relative humidity great, and the barometric pressure very high or very low. It appeared that those meteorological conditions that increased the physiological activity of the lungs favored the development of pneumonia.

The brief period of incubation which characterizes pneumonia may be explained by the almost constant presence of pneumonia-cocci in the air passages, suitable, extrinsic and intrinsic conditions conferring virulent properties upon a hitherto innocuous agent.

From many considerations it therefore appears that merely waging warfare against bacteria will not eradicate disease. The physical difficulties to be overcome alone render such a mode of treatment impracticable. A rational prophylaxis will have for its object the avoidance, as far as possbile, of exposure to infection to deleterious influences of all kinds.—*Med. News.*

AVOIDANCE OF STIMULANTS DURING HÆMORRHAGE.—It is customary, when the accident of hæmorrhage occurs, for the operator, or some bystander, to administer wine, brandy, or some other alcoholic stimulant to the patient, under the false idea of sustaining the vital power. It is my solemn duty to protest against this practice on the strictest and purest scientific grounds. The action of alcohol, under such circumstances, is injurious all around. It excites the patient, and renders him or her nervous and restless. It relaxes the arteries, and favors the escape of blood through the divided structures. Entering the circulation in a diluted state, it acts after the manner of a salt in destroying the coagulating quietly of the blood; and above all other mischiefs, it increases the action of the heart, stimulating it to throw out more blood through the divided vessels. These are all serious mischiefs, but the last named is the worst. In hæmorrhage the very key-stone of success lies so much in quietness of the circulation that actual failure of the heart, up to faintness, is an advanage, for it brings the blood at the bleeding-point to a stand-still, enables it to clot firmly, when it has that tendency, and forms the most effective possible check upon the flow from the vessels. Dr. Richardson (*Asclepiad*, Nov. 29, 1891), refers to a case in which three pounds of blood was lost and the patient was unconscious, but which recovered. He refers to this as typical, because, if a stimulant were not wanted in it, a stimulant cannot be called for in examples less severe. The course followed was simply to lay the patient quite recumbent when signs of faintness supervened, and, so long as he could swallow, to feed him with warm milk and water freely. Such in my opinion, is the proper treatment to be employed in every instance of syncope from loss of blood.—*Dietetic Gazette.*

THE VALUE OF BICHLORIDE OF MERCURY IN THE TREATMENT OF URETHRITIS.—Brewer (*Internat. Jour. of Surg.*,) reiterates his confidence in the efficacy of bichloride of mercury in the treatment of urethritis. His method was as follows: At the first visit the patient was instructed in the proper use of a syringe, and was given a large amount of a solution of bichloride of mercury, varying in strength from 1 : 16,000 to 1 : 50,000, according to the sensitiveness of his utrethra and the stage of the disease. This he was instructed to use twice daily, by taking ten injections in the morning and ten at night, holding each one in the urethra one minute to imitate as nearly as possible the result of irrigation. The patient was seen three times a week. As soon as the discharge lost its purulent character, bichloride was suspended and a mild astringent was substituted, preferable bismuth suspended in water. In the fifty-five cases treated in this way, five were not benefited, after an average employment of the method for seven days. In the remaining fifty cases, the average length of time necessary to affect a change in the discharge from pus to thin watery secretion was a fraction over eight days. The discharge entirely disappeared on an average of twenty-one days. Epididymitis occured in three of these cases and posterior urethritis was developed in two. The reporter very fairly states that these statistics are of little value from a scientific point of view, since the cessation of the discharge can by no means be considered as an index that the disease has been cured. He offers his conclusions not so much on the basis of these cases as upon a very large personal experience, and states positively that the judicious use of bichloride of mercury in cases of acute gonorrhœal urethritis is attended with better results in subduing the painful and disagreeable features of the disease than is any other agent. The recovery is more rapid and permanent, and the frequency of inflammatory complications is very greatly reduced.—*Therap. Gaz.*

TREATMENT OF DIABETES WITH MORPHINE AND CODEINE.—According to Federigo Gori, in the *Gazzetta degli ospitali*, the diet prescribed by Cantani, while it acts favorable at times upon the glycosuria of relatively recent cases, is not capable of suppressing the disease. This diet is sometimes borne badly ; but in general this is not the case if latic acid in large doses (150 grains) is employed at the same time. Both morphine and codeine exert a favorable influence upon the glycosuria ; but whereas the former may cause the disease to disappear completely as much cannot be said for codeine. The effect of morphine is always manifest, but is more energetic when the patient is upon an absolute meat diet ; the same is true of codeine when the patient is upon a diet largely of meat, but when on the rigorous diet of Cantani its effect is doubtful. The effect of codeine, and probably that of morphine also, though with less intensity, persists after the administration of the drug has been suspended.

Morphine undoubtedly exerts its good effect, when thepatient is upon a mixed diet, by not only removing the glycosuria, but also by increasing the body-weight and improving the subjective feeling of the patient. Both morphine and codeine have, besides their influence upon an existing glycosuria, an inhibitory action, as they prevent the increase or the return of the sugar, although such substances as favor glycosuria are swallowed in relatively large quantities. This action stronger in the case of morphine, which may give valuable aid when it is desired to change from a meat to a mixed diet. Neither the employment of morphine nor codeine causes disturbance of any kind in the general nutrition, but it exerts rather a helpful influence and favors the increase of body-weight ; it always improves the subjective condition of the patient. It appears that the diabetic condition *per se*, independently, or nearly independently, of the diuresis, favors the tolerance of the two alkloids.—*Deutsche Medizinal-Zeitung, Therap. Gaz.*

EPHEDRA AS A REMEDY FOR RHEUMATISM.—Very recently Dr. Betchine, of St. Petersburg, has reported in the *Revue de Therapeutique* his studies upon the antirheumatic properties of *Ephedra vulgaris, or Ephedra distachya.* The plant is widely distributed over Russia, and has long enjoyed a great reputation among the peasants as an anti-rheumatic and antisyphilitic remedy. Dr. Betchine has employed a decoction of four grammes of the powdered bark and root in twenty grammes of water, the dose of which is a desertspoonful every two hours. The remedy appears to be particularly useful in acute articular and muscular rheumatism. In from twenty-four to twenty-eight hours the pain is relieved, the temperature is reduced, and the pulse and respiration are quieted. In about eight or ten days the patient may be said to be cured, and the pericarditis that sometimes exists disappears with the other rheumatic manifestations. Chronic rheumatism is not so favorably influenced by the drug, and the author recommends it only in cases accompanied with more or less fever. The remedy possesses laxative, diuretic, and diaphoretic properties, to which its favorable influence upon this disease may be attributed. Professor Nagai, of Tokio, has isolated the alkaloid ephedrine from *Ephedra vulgaris.* This injected into dogs and cats, produces general convulsions, mydriasis, and exophthalmia. It is an efficient mydriatic, but has not yet been put to practical use.—*N. Y. Med. Jour.*

MENIERE'S VERTIGO AND THE SEMICIRCULAR CANALS.—The experiments of Flourens, which seemed to attribute to the semicircular canals the *rôle* of maintaining the equilibrium of the body, have been controverted by others to such an extent as to make it appear doubtful whether that part of the labyrinth is the seat of the lesion which determines the so-called vertigo of Ménière. The peculiar character of the vomiting, the fact that the latter symptom may occur suddenly without nausea, after irritation of the membrana tympani, the intimate connections between the pneumogastric and the auditory nerve at their origin, renders it more probable that the vertigo and cardiac symptoms are due to a reflex action in the pneumogastric dependent upon a lesion in some portion of the auditory nerve. The term Ménière's disease serves more frequently to mark ignorance of the lesion which occasions a series of symptoms often analogous but which are under the influence of very different causes.—*Brit. Med. Jour.*

SUBINVOLUTION OF THE UTERUS.—Prof. Barton Cook Hirst, of the University of Pennsylvania, recently gave the following as best combination to use :

℞—Strychnine sulphatis........gr. $\frac{1}{20}$.
Quinine sulphatis..........gr. ij.
Ext. ergote..............gr. j.

M. ft. pil. No. 1. Sig.—At one dose; to be repeated thrice daily.

THE CANADA LANCET.

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APPENDICITIS.

During the last few years the diseases incidental to the right iliac region have attracted considerable notice, and appendicitis, typhlitis and perityphlitis have been much discussed.

Dr. Joseph Price read a paper on appendicitis before the Philadelphia Medical Society recently, which sums up the diseases as understood by surgeons at the present time.

Dr. Price says: "The old terms were arrived at by examining old, neglected cases, frequently *post-mortem*; more recently the one term, appendicitis, is used before laparotomy, before *post-mortem*, because these two performances prove that so far as the gravity, intensity, and extent of the disease are concerned, the symptoms are unreliable, inadequate. Further, abdominal sections and *post-mortems* have determined what the treatment should be—that is, surgical—under a surgeon from its inception; hence the name impressing the nature of the disease and the character of the treatment, that is *appendicitis surgicalis*.

"Idiopathic peritonitis indicates nothing—is an empty term. The terms typhlitis, perityphlitis and paratyphlitis, are useless except to indicate a secondary or late process originating, without exception, in inflammation of the vermiform appendix."

This language is misleading. The great majority of right iliac cases are of a mild nature, and amenable to medical treatment.

A litttle further on, Dr. Price says: "Thirty-five per cent. of all *post-mortems* show residue of appendicitis; thirty-six per cent., over one-third of three hundred autopsies done at random, revealed diseased appendix (Taft). One case of perityphlitis to one hundred of appendicitis (McBurney). Assume that one-third or more of all adults have one or more attacks (Keen)."

With these statements we can agree, but were surgical interference necessary in every case, laparotomy would become an every-day occurrence, whereas we know that the majority of cases of appendicitis yield to medical measures, and in fact are frequently so mild in their nature as to remain unsuspected and are put down as colic, or some mild neuralgic affection of the iliac region.

The results arrived at from surgical measures, in advanced cases which would not have recovered under purely medical treatment, are certainly most encouraging; but as the surgeon does not usually have his attention drawn to the mild cases he naturally concludes that the disease is a more dangerous one than it really is.

A clinical lecture recently delivered by Jules Simon at the Children's Hospital, Paris, shows another phase of the question. The investigations, though made upon children, are applicable to adults, particularly as many of the adult cases are heritages from childhood. One case, reported by Prof. Simon, indicates his general views upon the subject. A little girl æt. six years had been the subject of obstinate constipation from infancy. She presented signs of cæcal obstruction, followed by diarrhœa and inflammation of the region. Under ordinary treatment, at the end of three weeks she was entirely well, not the slightest cæcal thickening remaining.

The mother was cautioned to look out for relapses, and particularly to watch for signs of constipation, and to prevent it. In spite of this, these hygenic measures were disregarded, and a year later typhlitis set in, followed by appendicitis and perforation, death ensuing.

Simon believed that in this case the constipation had caused cæcal dilatation; the intestinal walls were irritated by hardened fæces, the appendicular orifice became dilated, foreign bodies entered the appendix with the result of perforation and death.

This much is certain, obstinate constipation and some form of right iliac disease, preceded the fatal appendicitis.

"Simon says: "In all the cases that I have investigated, either in private or hospital practice, I have observed the same pathological evolution, and in cases where a special hygiene was observed and suitable treatment, laxative, instituted, the patient always escaped further accidents."

With these statement, most medical men will agree. Simon recognizes three stages of the disorder, preliminary to appendicitis: 1st. Simple constipation; 2nd. Engorgement and thickening of the cæcum; 3rd. Stercorœmia or constitutional manifestations from retained fæces. It is not uncommon to meet with cases of sudden pain in the right iliac region, with tenderness on pressure. There may be a nervous condititon, simulating shock, a rapid pulse with mental anxiety, with or without any elevation of temperature.

Tenseness of the abdominal muscles, with possibly induration of underlying tissues, is usually present. In view of the revelation of the *post-mortem* table these cases ought to be classed as appendicitis. In such cases, flushing of the bowel usually brings to light old hardened masses of fæces. An immediate cause, such as shock, injury or indiscretion in eating, may often be found Now, appendicitis would not have resulted from the particular exciting cause had not the predisposing condition been present. So if these cases be appendicitis, then it is only occasionally a surgical disease, for the vast majority of such cases recover promptly under laxative and other ordinary methods of treatment.

Right iliac disease is very common. It usually yields to medical measures. Its danger is in progressive appendicitis.

TO THE MEDICAL PROFESSION OF CANADA.

Robert Farquharson, M.D., M.P., long a prominent member of the Parliament of Great Britain, at the late seventeenth annual congress of the Sanitary Association, of which he is president, said "The foundation of all effective progress in preventive medicine must be education." Indeed it has now been found out in Great Britain that much greater progress can be made by educating the masses than by trying to coerce them. In Canada, our Provincial Legislatures may enact laws, and local Boards of Health may be organized by hundreds, and although all this is a good beginning and essential, much more still remains to be done. Sanitary work is but begun when good laws are passed and local boards organized. These do not create the public realization of their usefulness. Health acts are now in advance of the public feelings. The people often instead of welcoming them take their enforcement as an intrusion and interference with individual rights and liberties. The masses of the people are not disposed to inconvenience themselves by keeping their bodies and premises clean, and their infected families isolated to gratify the whim of their neighbors or even their law makers. They require to be taught that compliance with health rules and regulations will be a direct benefit to themselves, yea, money in their own pockets;—that non-compliance with such rules and regulations is the cause, indeed the only cause, of disease, with all its attendant pains, expenses and loss of time, that wherever there is a high mortality or a high sickness rate, there surely will be found unsanitary conditions or environment which demand attention. In this education of the people, although not at all akin to the education of the schools, it is very desirable that a spirit of emulation be stirred up, in order that the various districts, or municipalities shall vie with each other in showing a low death-rate, and a "clean bill of health" by keeping themselves free from epidemic and other diseases.

It is and has long been the universal opinion of sanitarians that the basis of all public health work and progress, both educational and coercive, is a system of health statistics—of births, marriages and deaths. Beyond this, it has become clear, in recent years, that for the best, or even fair, preventive progress, statements or reports (not exactly statistics, for they cannot practically be complete or accurate) monthly or oftener, of prevailing diseases, especially of any outbreak or cases of infectious disease of importance, are absolutely essential. It will not do to *wait* for the *death* returns. Not only the local boards, but the central organization should be early informed of any such diseases. Returns and records of these statistics and reports or statements of prevailing disease would form a vast valuable record, year after year for the Federal—the Canadian government to possess, but to be of practical value, the information obtained from month to month, or oftener especially of prevailing diseases, must be scattered freely amongst the people, at least monthly, as by means of a bulletin. These reports not only show where unsanitary conditions need attention, but they give rise to the desired spirit of emulation amongst the different municipalities. Every community then would have a strong tendency to endeavor to prevent as far as possible any outbreak of disease, each in its own respective locality, and to preserve a "clean bill of health," as ships at sea usually desire to do, for their own credit

Now it must be obvious to anybody, even if he be not versed in political economy, that it would be much more economical, on the whole, for but one centre in Canada the Federal government, to carry on this work of collecting statistics and reports, recording them, and issuing a bulletin of their condensed facts, etc., than for each province to do so on its own account, while the results in the former case would be incalculably better. If done by the one central government, all the information obtained would be in one central Canadian record, and, more important still, the information conveyed by the returns would then be distributed throughout all the provinces; done by each province, each would only collect and distribute the information within its own bounderies, except perhaps to a few outside officials, and the people of each, would therefore only receive and obtain the information gathered within and relating to their own province; whereas, it is almost as essential for the Eastern or Western provinces, for example, to learn in what special localities any epidemic or prevalency of disease exists in Ontario or Quebec, as in their own provinces, while the same principle holds good with regard to Ontario and Quebec, in relation to the East and West. In short, if done by the one centre, all the provinces would get the good of all the information obtained ; if done by each separate province, each would only get that relating to itself—a vast and most vital difference. There appears to be a good deal of misapprehension amongst members of the profession relative to this question of Federal and provincial public health legislation and action, arising apparently from want of time amongst the busy practitioners to consider thoroughly the whole question in all its bearings. Coercive legislation, enactments, by-laws, etc , and the carrying out of the same, must remain as now under provincial and municipal control. But any one who will give the subject due thought and consideration will surely see that the collection of the proposed statistics and reports and utilization of these for the public instruction and benefit, as above indicated, can be much more thoroughly, economically and profitably done by one centre than by many—with vastly better results in every way. In agriculture, the one Central Experimental Farm can be utilized for the education of the farmers of the whole Dominion much better than for each province to sustain such a farm and attempt the instruction separately. Somewhat similar it is in relation to the analysis of food, etc., in the Dominion ; and to the quarantines and diseases of animals. Moreover, it may be well to note here that, if we desire to make Canada as soon as we can the great country she is surely destined to become, while defending in a large measure provincial rights and privileges, we must as far as possible encourage a spirit of Canadianism, a unity and oneness, in all possible questions and subjects and not manifest too much "provincialism." As already in several of the provinces there is in a large measure provision for obtaining a record of births, marriages and deaths, it has been well suggested that, at least for some time to come, each province may as well in its own way collect such statistics and then allow them on some terms, to be utilized by the Central Department and dealt with for the public benefit in all the provinces ; those provinces which have not now a system for this purpose being induced in some way to provide such. It appears that it is now proposed to endeavor to obtain for the statistical department in Ottawa the information above indicated, from physicians in all parts of the Dominion, relating to the prevailing condition of the public health—*i. e.*, reports of any epidemic and cases of the most important diseases, by providing the physicians with blanks for this purpose. Doubtless the Government, any liberal government, would be quite willing to pay fairly for such reports, if the people through their representatives in parliament were willing to vote the money for the purpose. Are the people willing? Many members of parliament, including at least one physician say, decidedly no : that if they were to vote for a sum requisite for such purpose they would be censured by their constituents. Then we can only, or must, first of all, educate the people up to a right appreciation of the importance and necessity for such information. They will then doubtless be willing to pay fairly for it.

Now this is largely, almost wholly, in the hands of the medical practitioners of Canada : what will they do in its behalf? It has been repeatedly said by a few of them that physicians now do too much without remuneration, more than their share, etc , and that the government, i. e., the people, of course, should pay for all such information. This is very true ; the people should pay ; but as it is now, they will not pay, at present. Shall we not then endeavor not only to teach them the value of having it done for their own sakes, but also to be willing in course of time to pay for the same ?—teach them without pay, for a time? What else can be done? Medicine, it may be observed, is not a business, but a liberal profession, perhaps the most liberal of all the professions, once chiefly practiced free by the priesthood. Is not the profession now, are not the members of it as a class, worthy and desirous that it shall ever remain thus liberal, free, noble, bounteous ? The physician gives what cannot be weighed or measured, and hence well estimated as to its money value. He must, however, get a livelihood for his family and in this business age a certain amount of business energy is necessary. As the *New York Medical Record*, of Jan. 16th, 1892, says the physician's sympathy for the suffering, and his absorbing interest in the scientific aspects of his cases, raise his mind above financial considerations, and cause him to forget that he is working for the support of himself and family, as well as for the good of humanity. The physician has furthermore, as a rule, an inborn repugnance, or incapacity, for money-making pure and simple. He dislikes the financial relations and would gladly treat patients without a thought of fee, if he could be guaranteed an income to supply the needs of his family. Owing to this shrinking from even the appearance of being mercenary he often hesitates to prosecute his just claims. No one knows better than the writer how much has already been done by the medical profession in Canada in promoting and advancing the public-health interests in the Dominion. It has always been foremost in this work and indeed all sanitary progress is due to its efforts. Will physicians not now "one and all," continue thus liberal, and not allow the question of "pay" to influence them to the neglect of any public benefit or scientific proceeding? Colton it appears long ago said "Physicians are becoming too mercenary." But he wickedly added,—"Parsons too lazy and lawyers too powerful." Notwithstanding the influence which wealth now gives, there is that which wealth cannot purchase or procure. If the profession desires to retain its high position, or to push itself up to its proper place in society, as the first of all professions, the members of it must not approach the "mercenary," although they may properly and should place a high value on their services with all those who are able and especially not unwilling, to make full return for the same. When an effort is made, as it may be, to obtain a fair recorded return from the medical practitioners of Canada as the general condition of public health, especially as relating to infections or malarial diseases in their respective localities, hundreds will doubtless cheerfully respond to the calls of science and the public weal. Will they not all do so? When the work has been done for a time and the value of it has been manifested, proper representation of it to the Government and the people will doubtless bring the reward.

EDWARD PLAYTER.

Ottawa, Feb. 1892.

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ON THE RELATION OF EPILEPSY TO INJURIES OF THE HEAD.

In concluding a paper on the above subject J. J. Putnam, M.D., says (*Boston Med. and Surg. Jour.*) (1) The causes of epilepsy are numerous ; and we cannot hope in most cases remove them all by early trephining and care to the wound, though these measures, and especially the removal of fragments, are probably very important.

(2) The local and the general injury of the brain are probably of prime importance, as causes of epilepsy, and are to some extent independent of fracture. The former may perhaps sometimes be treated as suggested by Keen, but the latter can only be reached by general treatement.

(3) The treatment of the general conditions of the brain, by cold and by prolonged, absolute mental rest is probably of great importance, and might perhaps be reinforced by other measures directed to the same end.

(4) The occurrence of localized convulsions or auras does not necessarily indicate disease, to be removed by operation ; since, on the theory that the disease is a general one, it would have to find some local expression. It is especially true that convulsions or sensory auras beginning in the hand or face are untrustworthy indications of the extent of the cerebral lesion, because the cortex corresponding in these parts has a high degree of irritability.

(5) Considering the long period that usually elapses after an injury in the head, before epilepsy declares itself, a period during which the patient may be perfectly well, it is reasonable to seek for some better term than "local irritation" to express the connection between the two events. We may fairly suspect that in most such cases a degenerative process goes on, which increases in extension, and perhaps in intensity. Sometimes a neuritis, starting from the seat of injury seems the important link [" History of Frenco-German War;" Nothnagel].

We know that such a progressive degenerative process as this is capable of giving rise to epilepsy of the localized type, independently of any gross local irritation, as in the case of epilepsy complicating general paresis, of ordinary epilepsy of certain types, and perhaps of epilepsy in cases of head injury without fracture, and of diffuse cerebral sclerosis. We know, further, that the removal of gross irritations in case of an already existing epilepsy of traumatic origin usually gives only a temporary relief. It is, therefore, reasonable to suspect that the state of impaired storage power on the part of the ganglion cells, which we call the epileptic state, is liable to be more widespread than the signal symptoms of the fit would suggest; that we have as often an instance of impaired inhibition or mutual support between different cerebral centres as of locally impaired storage power; that the fit is local in its first expression because the centre corresponding to the initial symptom was an especially irritable centre (for physiological or pathological reasons), and that the impulse to its discharge may originate elsewhere, or be inoperative unless reinforced by other influences.

How near the epileptic condition may be to apparent health, that is, the latency of the epileptic state, is shown by the fact that epilepsy interchanges with other neuroses, and that the attacks may be brought on by slight causes. This, of course, is a reason for trying first to inhibit attacks for a time so as to check the habit, and, next, to keep away all possible exciting causes. This may constitute a sufficient reason for trephining even when we cannot believe that we can remove the cause of the disease.

(6) May not operation by trephining, for the sake of exploring the parts, be called for in case of patients presenting themselves for the first time after the fracture has healed, but before the outbreak of epilepsy—say within six months or a year? In some respects the tissues are perhaps in better condition for exploration, with the prospect of finding a delimited and removable lesion, a short time after the injury, though it is also true that degenerative processes may already have been initiated. This is a matter for further study.

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Itch Pomade.—Lollis, Lin *Le Monde Pharmaceutique* gives the following, which is said to be a sovereign remedy against the itch :

℞—Creolin,	. . . .	5 parts.
Vaselin,	. . . . . .	100 "

Mix. Use with friction, once every day over the parts affected.

The Law of Periodical Function in Women.—Ott (*Wiener Med. Presse Archiv f. Gynœco. l.*) reports some observations, not exclusively upon menstruation, but upon the various vital processes occurring in women during the period of generative activity. These processes correspond in time to the hæmorrhage,—are associated conditions, with a dependent relation to it. Observations upon temperature, pulse, and blood-pressure indicated that vital activity attained its maximum preceding the menstrual period, and declined at its commencement or immediately before. Sphygmographic tracings, muscle strength, and excretion of urea suffer similar variations. Observations were made at a certain hour each morning during prolonged periods, sometimes extending into the menstrual periods, upon heat radiation, muscle strength, pulmonary capacity, inspiratory and expiratory force, the tendon reflexes, in healthy women placed under the same condition; and a physiological functional periodicity of the female organism was demonstrated. To establish the connection between menstruation and this periodicity of function, it is necessary to determine if the rhythmical variations are independent of menstruation. A large number of observations made by Dr. Schichareff, under the guidance of Ott, upon pulse, temperature, and blood-pressure in girls between the ages of 8 and 13, and in women between the ages of 58 and 80 years showed that no such periodical variations of physiological functions occur in females during the periods in which they are not capable of conceiving, and in which they do not menstruate.

MERCURY IN TYPHOID FEVER.—From a clinical experience embracing nearly seven hundred cases of typhoid fever, Dr. Smakovsky (*Univ. Med. Mag.*) concludes that the simplest and most efficacious treatment consists in the administration of calomel in fractional doses, according to the method of Professor Zacharine, of Moscow. Three-fourths of a grain of calomel is given every hour for ten doses, if necessary, or till copious, soft greenish stools have been secured, a gargle of chlorate of potash being meanwhile used to prevent stomatitis. In cases in which cardiac weakness already exists, an infusion of digitalis is used before the calomel. If instituted in the course of the first seven days of the fever, this treatment is said to abort the disease, even when grave in type. If this result is not obtained, the drug exercises the most favorable action in shortening the duration of the disease and preventing complications. A second course of calomel may be given a day's interval after the first, the abortive action being produced sometimes only after this second administration. During the interval, and subsequently if the disease is not aborted, the author prescribes:

℞.—Subnitrate of bismuth . . 2½ grains.
Pure naphthalin . . . $\frac{3}{10}$ grain.
Sulphate of quinine . . . 1½ grain.
Sig.: One powder. Four of these daily.

The author is convinced that the mortality should be *nil* in all cases where the treatment is commenced before the tenth day of the disease, excepting with the very old, or where it occurs in the course of another grave malady.

CURE FOR DRUNKENNESS.—Dr. Reagan, (*Med. Summary*) says: Some years ago my friend, Colonel N., had become a confirmed drunkard. He drank day and night. He had lost the use of his lower limbs, so that he had not been able to stand on his feet for two years. The physicians of the town where he lived had done all they could for him, to no effect. He sent for me; the physicians laughed at the idea of doing anything for him. I weighed out the strychnia in his presence, and measured the whiskey so that every half ounce of the latter contained one-twentieth of a grain of the former. I told his family to let him have no whiskey except that in the bottle, and of that only one-half ounce three times a day. I also pustulated the spinal column with croton liniament. In three weeks he could walk, and in three months he was well and his appetite for whiskey was gone. He lived twenty years after this, and frequently told me he had no taste for stimulants. He was not only an advocate of temperance, but made many speeches for prohibition, and before his death his town became a prohibition town and remains so yet, mainly through the influence he exerted when alive.

GOLDEN RULES OF SURGICAL PRACTICE.—These rules are from the pen of a London hospital surgeon. They contain so much valuable material, expressed so well, that we have decided to reproduce the paper entire in our columns. (*Times and Reg.*)

Abdomen.—Always avoid purgatives in treating a patient who has swallowed a foreign body. Give opium and constipating food—boiled eggs, cheese, puddings, potatoes, etc.

Never close any wound of the abdominal wall till all hemorrhage has ceased.

Never, under any circumstances, apply pressure to a wound of the abdominal wall to arrest hemorrhage.

Never mind increasing a superficial wound of the abdomen in order to remove a foreign body or to secure a bleeding point.

Never probe any wound in the abdominal wall.

Never forget that all abscesses of the abdominal wall should be opened freely and at once.

Never hesitate or delay to open and drain an abscess in the loin due to rupture or injury to the kidney.

Never procrastinate in strangulated hernia. It is not usually the operation which will prove unsuccessful in herniotomy; the danger lies in your allowing the bowel to become irrecoverable.

Never be deceived by an opiate masking the acute symptoms of hernia, obstruction, peritonitis.

Never tap a suspected renal tumor through the abdominal parietes, *i. e.*, through the peritoneum.

Always relax the abdominal wall after suturing.

Never ligature *en masse* in cutting off omentum. Do it piecemeal.

[The constricted edge of the apron of omentum may unravel, and fatal hemorrhage result.]

In protrusion of the viscera never neglect to pass your finger fairly through the wound to make sure that the reduction has been complete.

And be careful never to push the bowel into an interstice between the muscle or into subperitoneal tissue.

AN IMPROVED METHOD OF GRAFTING ULCERS.—Dr. Gill says: "Cleanse the surface well for a few days with boracic fomentations, slightly abrade the granulations, enough to cause oozing, and then apply the grafts to the abraded surface, where they are held in place by green protective. After the grafts are applied, about one to every square inch of surface, the limb is to be encircled with a fold of carbolic gauze, which extends for two or three inches above and below the ulcer, and is attached to the skin by collodion. The ulcer is then thoroughly dredged with boracic powder through the gauze and the whole is wrapped in a layer of wet boracic lint. As a rule, the dressing is not disturbed for three days, when the lint is removed and the limb well irrigated with a boracic lotion. After dressing the limb in this way, it is again done up in the wet lint which is changed daily. The gauze and protection are removed entirely at the end of ten days, and each graft will be found to be as large as a sixpence, while those near the edges will have caused a rapid ingrowing of epithelium.

"The half-inch squares of green protective, four or five, are placed one on top of the other."

FOR ASTHMA.—Dr. Holland, writing to the *Times and Reg.*, says: "Seven weeks ago a young lady, nineteen years of age, was brought to my office by her parents, who said she had suffered from asthma ever since she was ten years old. I found the following symptoms present: Shortness of breath, occurring in paroxysms; sometimes does not recur for several days, then lasting, with intermissions, for weeks; may last for a whole night at a time; is not made worse by exercise, nor relieved by rest; no expectoration; attacks were at night; no wheezing sound in violent exercise; tongue clean; bowels generally constipated; respiratory murmur on right side distinct; expiration sound not markedly prolonged; on left side, murmur slightly harsh; no râles; respiration jerky; more marked on left side than on right; heart-beats distinct and forcible; impulse increased; soft murmur at apex—cause not traceable. Has had chills and fever since above trouble.

"I put this patient on the following treatment. She came back, at the expiration of two weeks, much improved in every way. I renewed the same, and she has just left my office entirely well in every way, as far as I can ascertain.

℞.—Acid hydrocyanic dil	♏ xv.
Tinct. lobeliæ	ʒiij.
Syr. scillæ comp	℥ss.
Spt. lavand. comp	ʒiij.
Syr. simp.	℥j.

M.—Sig. One teaspoonful to be taken when attacks come on, and repeated within an hour if not relieved.

"Also, for the constipation, gave her Prof. Waugh's pill:

℞—Ext. aloes purif.	gr. x.
Ext. nucis vom.	gr. x.
Podophyllin	gr. ij.
Oleoresin capsici	gr. ij.
Sacch. lactis	q. s.

M. ft. in tablet, No. xx. Sig. One at breakfast daily."

GASTRIC HEADACHE.—Says the *Hosp. Gaz.*: A large proportion of cases of "headache" are of gastric origin, and are amenable only to remedies directed to the defect underlying the condition. The slighest departure from the normal process of digestion favors the elaboration of more or less toxic nitrogenous products, the absorption whereof leads *inter alia* to remittent headache. The rage which at present exists for the use of analgesics such as antipyrin has diverted attention from the simpler, more effectual (because more permanent) and less injurious method of treatment. Dr. Westphalen, of Berlin, points out that deficient acidity of the gastric juice is accountable for this symptom in a very large number of cases. He has tried the administration of dilute hydrochloric acid with the most gratifying results, the remedy being given immediately after a meal, and particularly after the ingestion of any special article of diet, which has already been noticed to be followed by the typical cephalalgia.

FORMULÆ FOR ECZEMA.—The following formulæ are taken from the Memphis *Med. Monthly*: Dr. Macintosh gives the following as an ointment, which in most cases pretty nearly approached the character of a specific:

℞—Bismuthi subnitratis, ʒ iv.
Zinc oxidi, ʒ j.
Acid carbolici liquidi, ʒ ss.
Vaselini albi, ℥ ij.
M. ft. ung.

Or:

℞—Bismuthi subnitratis, ʒ iij.
Zinc oxidi, ʒ ss.
Glycerini, ʒ iss.
Acidi carbolici liquidi, ♏ xx.
Vaselini albi, ʒ vj.
M. ft. ung.

The latter ointment mixes into a beautiful enamel-like cream, which is cooling, and acts as a balm to the irritated skin. When constant tingling and irritation disturb the patient's rest at night, the following lotion is said to be valuable:

℞—Bismuthi subnitratis, ʒ j.
Glycerini, ʒ iv.
Acidi carbolici, liquidi, *m* xij.
Aquæ rosæ, ad. ℥ j.
M. Sig. Shake up and apply with a camel's hair pencil.

THE following medical proverbs are from the *Med. Age*:—

German—A physician is an angel when employed, but a devil when you must pay him.

Dear physic always does good.

A disobedient patient makes an unfeeling physician.

Spanish—What cures Sancho makes Martha sick.

The earth hides as it takes
The physician's mistakes.

He that sits with his back to a draught, sits with his face to a coffin.

Of the malady a man fears he dies.

He that would be healthy must wear his winter clothes in summer.

English—Diseases are a tax upon our pleasures.

A good surgeon must have an eagle's eye, a lion's heart and a lady's hand.

Tender surgeons make foul wounds.

Miscellaneous—A physician is a man who pours drugs, of which he knows little, into a body of which he knows less.—*French.*

Do not doubt; you are no doctor.—*Anon.*

Most physicians, as they grow greater in skill, grow less in religion.—*Massinger.*

FRIGHT AND CHLOROFORM.—Under this title the *Br. Med. Jour.* (*Therap. Gaz.*) reports the following case of death from chloroform. The facts elicited at the inquest held upon the remains of Mr. Weguelin-Smith showed that he suffered from varicose veins, for which he was to undergo an operation in St. Thomas' Home. Before this he was examined by the anæthetist, who was struck by his "looking ill." However, the examination showed Mr. Weguelin-Smith, who was only twenty-five years of age, to be free from organic disease. He was, however, very nervous, and expressed a fear of chloroform. This anæsthetic was given, but when 20 or 30 drops had been administered, breathing and the heart's action stopped. All efforts to restore vitality failed. The chloroformist stated that his patient was at no time really under the influence of the anæsthetic, and that death resulted from syncope.

THE ANTISEPETIC TREATMENT OF BURNS.—Mr. Mayland concludes a paper in the *Glasgow Medical Journal* on the above subject as follows:—
1. The parts sterilised by the burn are kept sterile. 2. No active inflammation takes place, and hence no further death of tissue ensues. 3. No copious purulent discharge. 4. Infrequency of removal of dressings. 5. Little or no pain connected with such removal. 6. No offensive odor. 7. The necrosed tissue is rapidly thrown off by the growth

of healthy granulations. 8. The resulting cicatrix is the least possible, from the fact that parts are preserved which might otherwise, from septic influences, have died. 9. Lastly, the process of healing being unimpeded by any local disturbances, there is an absence of any constitutional symptoms.

We are pleased to note the enlargement of the *Physician and Surgeon* for January. It is a live and progressive journal and we wish its proprietor all success.

Books and Pamphlets.

A Manual of Hypodermic Medication. By Roberts Bartholow, A.M., M.D., LL.D. Fifth edition. Philadelphia: J. B. Lippincott Co.

This edition is a compend of what is known of hypodermic medication down to Sept., 1891. It need hardly be said that it contains a vast amount of information on a subject in which many practitioners are greatly interested. If the doses given hypodermically be small, the number of medicines thus used is now very large, as this volume shows. Those who desire to be well informed in this method of medication cannot do better than consult this work, which consists of 529 good sized pages—as large as some of the class books which embrace the entire subject of materia medica and therapeutics—and is the work of one who stands very high as a therapeutical authority.

A System of Practical Therapeutics. By American and foreign authors. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Phila., Secretary of the Convention for the Revision of the U. S. Pharmacopœia of 1890, Physician to St. Agnes' Hospital, Phila., etc. Assisted by Walter Chrystie, M.D., formerly Instructor in Physical Diagnosis in the University of Pennsylvania, and Physician to St. Clement's Hospital, Philadelphia. In a series of contributions by seventy-eight eminent authorities. In three large octavo volumes of 1000 pages each, with illustrations. Philadelphia: Lea Bros. & Co. Toronto: D. T. McAinsh, Canada Life Building. Price per volume: Cloth, $6: Leather, $7; Half Russia, $8

We have received from the publishers the first volume of this system. To give an adequate review of the work would occupy more space than is at our disposal. We can only outline the general impression this volume makes upon us after a careful study of its contents; and that impression is wholly in the direction, that the work is one of equal importance with any that has ever been issued. The time is ripe for a system of therapeutics. Every practitioner must have felt how meagre is the therapeutical side of our best works in medicine. Now this system will, we believe, just fill the niche that has so long been left vacant. Many excellent, but more or less limited treatises on the subject, have from time to time appeared, chiefly in connection with manuals on Materia Medica, but this is the first comprehensive system we have seen, and when we glance over the list of contributors and find among the seventy-eight, such names as H. C. Wood, A. D. Rockwell, Edwin Solly, Simon Baruch, Henry B. Baker, J. Burney Yeo, Solis-Cohen, James Stewart, Packard, R. W. Taylor, Lewis Smith, Sayre, Lauder Brunton, A. D. Blackader, Hyde, Sachs, and scores of others whose names are equally well-known men in the profession; we may well expect that the forthcoming work will be the best that can be produced at the present day. As is well said in the announcement:

> There is an art as well as a science in Medicine and all the labors of the distinguished investigators who have by their discoveries within a generation transformed etiology, symptomatology, pathology and pharmacology, would be of little benefit to mankind if the practitioner had not found their applications in therapeutics. To the practising physician and his patient, therapeutics is the one essential subject of study, to which all the rest are subservient. It is the art of healing, and he is the most successful practitioner who is most fully acquainted with all the resources and methods which it places at his disposal.
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> The idea of such a "system" is to bring within the reach of the profession the collaboration of a number of men, each eminent in his own department, for it is manifestly impossible for any one man to be conversant with all its divisions, so great has been the advance made within the last few years, in this branch of medicine. We notice that surgical therapeutics have been introduced wherever necessary, to make clear and complete the subject under discussion. The publishers propose to sell the work only by subscription, and to that end have established an agency here, with D. T. McAinsh as its head. We can only say that, the first volume being an earnest of what is to follow, the system will fill a very important place in medical literature, which has hitherto been vacant and that the work should be in the hands of every practising physician in the country.

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Original Communications.

ACUTE NECROSIS OF GROWING BONE.*

BY GEO. A. PETERS, M.B., F.R.S.C. ENG., TORONTO.

My reason for bringing this subject before the Association is that it is so frequently overlooked as to justify the remark of Holmes that the presence of this disease is more often discovered in the *post mortem* room than at the bedside—this statement illustrating at once the virulence of the disease and the difficulty attending its diagnosis. Of the many names that have been used to designate this disease, I have chosen that employed by Mr. A. H. Tubby, as uniting simplicity and significance. Other names under which the disease has been described, are: acute infective osteomyelitis, phlegmonous periostitis, necrosial fever, bone-typhus, and, by Ollier of Lyons, juxta-epiphyseal osteo-periostitis—a name sufficiently cumbrous, though certainly comprehensive. The symptoms of the affection are sufficently described by the relation of a very typical case occurring in practice of Dr. W. P. Caven, which I saw in consulation with him, and from which the specimen and the cultures shown were obtained.

The patient, a girl æt. 9, was of healthy parentage, but had grown rather rapidly, and was always thin and delicate. One brother died of spinal caries, and a brother and sister of heart disease following rheumatism. Patient was first seen Feb. 21, '91. She complained of pain in the right knee, which was red and tender, but not swollen. Pulse 100, temp. 102°. The next day she complained of pain in the right thigh, but there was no swelling as was proved by measurement. She also complained of pain in the right elbow and left shoulder. Urine, normal.

Feb. 13, pulse 120, temp. 103°. Pains in various joints. A slight increase in the circumference of the right thigh was observed, and this part was excessively tender, but no fluctuation could be detected.

It now became evident that the child was suffering from acute necrosis of the lower end of the shaft of the femur. The usual objections, however, were offered by the parents to any operative interference, and in the meantime the suppurative process, at first confined, probably, to the lower end of the diaphysis of the femur, was set up in distant parts. Pleuritic and pericardial rubs were heard with great distinctness, and a swelling shortly appeared in the right submaxillary region.

When finally the objections of the parents to operation were overcome, it was found that the patient was in so low a state that the administration of an anæsthetic would be attended with the greatest danger, and, moreover, the evidence of pyæmia, which the presence of the above-mentioned complications afforded, rendered the prognosis absolutely fatal in any case.

She could be induced to take neither nourishment nor stimulant, and gradually sank, dying on the 9th day of the disease.

Only a partial post-mortem examination could be obtained. An incision was made at the site of the proposed operation wound, viz., between the tendon of the biceps and the ilio-tibial band at the outer side of the lower end of the right femur. On incising the periosteum, thick dark pus gushed forth with some force, indicating that it was exerting considerable power in dissecting the periosteum away from the bone. On enlarging the incision it was found that that membrane was separated from the bone throughout its whole circumference below, and that the separation extended to about the middle of the femur. It was strikingly noticeable, however, that the separation stopped short at the epiphysis, and that the knee-joint was quite unaffected. These points are well seen in the specimen. On making a longitudinal section of the bone, the tissue on the shaft side of the epiphyseal cartilage was observed to be in a condition of acute inflammation. The prevailing redness was interrupted at numerous points by yellowish spots of suppuration, and these small abscesses were scattered, not only throughout the cancellous tissue, but also in the medulla of the lower three inches of the shaft. Though the epiphysis as a whole appeared to be quite firmly attached to the shaft, it was found upon making a thin longitudinal section through both epiphysis and shaft, that the former was so nearly separated that its remaining attachments were scarcely able to sustain its own weight. It is evident that if life had been prolonged for a few days, complete separation of the epiphysis—epiphysiolysis—would have occurred.

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*Read before the Ont. Medical Association, June, 1891.

Though an examination of the viscera was not permitted, the clinical signs of pericarditis and pleurisy were unmistakable, and every analogy would lead us to believe these inflammations were purulent in character. In a case of which I saw the *post-mortem* in University College Hospital, London, there was present ulcerative endocarditis, with numerous small abscesses in the spleen and kidneys, illustrating the intense virulence of the causative germ in this disease.

The phenomena of this disease point clearly to the view that it is an acute infective disease of a specific character, occurring exclusively among those in whom growth has not ceased. Ollier of Lyons, however, states (*) that he has seen cases of suppurative osteo-myelitis with separation of the epiphyses of tibia, humerus, etc., in patients between 30 and 40 years of age. He points out that throughout life the position of the epiphyseal cartilage is represented by an ossified line, which keeps its direction accurately, and separates the longitudinal system of lamellæ of the epiphysis from those of the diaphysis. He asserts that the juxta-epiphyseal portion of the shaft is more vascular than the epiphysis itself, and attributes to this circumstance the fact that the ends of the shaft are the favorite seats of osteitis and necrosis.

The subjects of the disease are usually children, most frequently males, who are generally strumous or in feeble health, the result of a recent attack of some specific disease, as scarlet fever, measles, etc. The immediate exciting cause is now known to be the fungus, designated *staphyloccocus pyogenes aureus*. This germ flourishes in many conditions, and is the most common organism found in all forms of acute suppuration. It is met with in boils, acute mammary abscess, thecal abscess, and suppurating wounds, yet we do not look upon any of these conditions as excessively virulent or immediately dangerous to life. What is the reason then that when this coccus lodges in the growing end of a long bone it produces a train of symptoms that are exceedingly alarming, and not infrequently gives rise to processes which destroy life in a few days? The answer to this inquiry is perhaps found in the peculiar anatomical structure of growing bone. During its growth bone is traversed by large numbers of new, and imperfectly developed capillaries. Neumann (*), has also pointed out that the capillaries of medullary tissue are not less than four times as large in calibre as the arterioles which supply them. These giant capillaries moreover communicate freely with the large and thin-walled veins of the part. This arrangement, it will be observed, is admirably suited to the implantation of floating micro-organisms, and the growth and multiplication of these is further fostered by the abundant supply of pabulum carried to them, and by the facility with which their waste products are got rid of through the large venis of the medulla. Moreover, leucocytes laden with the germs as the result of their phagocytic action, are easily swept into the stream and carried to all parts of the body, and if the germs are deposited in favorable soil they multiply and give rise to abscesses, and thus a condition of pyæmia is established.

The exact point of commencement of the disease has been the subject of much dispute. German and French surgeons assert strongly, that the primary focus of the disease is in the medulla, whereas English pathologists are quite as positive that it commences in the periosteum over the bone. Tubby,* following Ollier, of Lyons,† places the initial focus in the juxta-epiphyseal portion of the shaft, and has done much to establish his contention by experiments upon rabbits. It must be borne in mind that the medullary canal does not by any means reach the epiphyseal cartilage, and that the bulk of the growth takes place in that portion of the bone immediately adjacent to the shaft-side of the epiphysis. Moreover, the beneficial results of early incisions down to this point, tend to confirm the view that the disease commences most frequently in the cancellous tissue on the shaft-side of the epiphypsis, though it is only too well known that it may reach both the medulla and the periosteum in a remarkably short space of time. The progress of the disease, after reaching the medulla proper and the periosteum, is rapid, and within a week, if the patient survive so long, the whole medulla may be full of pus, and the periosteum may be raised by pus throughout the whole length of the bone between the two epiphyseal cartilages. Too often, however, before this extent of local disease is reached, the patient has succumbed to septic poisoning, inflammation of the serous membranes, or other pyæmic manifestations.

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* International Cyclopœdia of Surgery, Ashurst, Vol III. p. 769.

* Principles of Surgery, Senn. p. 235.

*Guy's Hospital Reports, Vol XVII, p 92.

†International Encyclop. of Surg., Ashurst, Vol., III p. 766.

(*To be continued.*)

HÆMATURIA.*

BY WM. BRITTON, M.D., TORONTO.

When baffled in tracing the origin of pathological phenomena, the temptation to hide the imperfections of a much-loved science is at times too powerful for its votaries; a garb meagre and out at elbows is obscured from the public gaze by a coat of tinsel, and medical vocabulary is amplified by the coining of another euphonious word. The ceremony of christening is orthodox enough in its way; but, like Tristram Shandy, unfortunate even *ab initio*, the child may be doomed to pass through the natural period of its existence bearing a name much corrupted in the giving, and therefore sadly misleading; the symptom is accorded a position of too exalted dignity, and in the course of constant usage comes to be looked upon as the disease itself, with the inevitable consequence of haphazard treatment. In such a class of symptoms hæmaturia occupies a leaning position not only on account of its importance, so far as the interests of the patient are concerned, but also owing to the multitude of subjects opened up by an investigation of the matter. Indeed, a full and intelligent discussion of its many ramifications would fill a volume; and had I the requisite ability it would be quite impossible in the length of an ordinary paper, to do more than touch upon each. Endeavoring to do so as briefly as possible, less attention will be given to the theoretical than to those features which appear to be of most practical utility. Therefore, as a sign of diseased conditions, which it is, and nothing more, its relations of cause and effect, together with a passing reference to some remedial agents, will be the limit.

At the outset the line of distinction may wisely be drawn between it and hæmatinuria, which, in many features, it so closely simulates, and with which, as to origin, it is occasionally identical.

The difference between the two conditions is broadly stated in the fact that the red corpuscles are apparent in the former, while in the latter the coloring matter is present, those bodies having been broken down and only a detritus remaining.

It is obvious that escape of blood into any part of the urinary passages may be produced by—1st—Depraved conditions of the blood-current, the structures themselves being intact. 2nd.—Congestion, active or passive, of any portion of that tract, such as may occur in the early stage of Bright's disease. 3rd—Solution of continuity either from external injury or internal concretions and parasites; and 4th—by the unhealthy vascular condition of, or irritation arising from, neoplasms.

Other exciting causes being equal, the more marked the dyscrasia, the more likely the corpuscles are to undergo disintegration either before or during extravasation; therefore, if by any influence the vital force is lowered, a true hæmaturia may be transformed into hæmatinuria.

For example, a blow on the back, which ordinarily would excite renal hæmorrhage, might, if the system is saturated with malaria, be followed by hæmatinuria.

Red corpuscles break down more rapidly than the white, especially in alkaline urine; consequently hæmorrhage is not always discoverable microscopically, if the secreting function of the bladder is sufficiently abnormal to favor alkalinity, particularly so if the blood has escaped slowly and been retained for any length of time in that viscus. Chronic poisoning by arsenic, phosphorus and iodine, and the depraved habits of body engendered by scurvy, pyæmia, septicæmia, yellow fever and notably malaria in its malignant form, may be mentioned as the most frequent causes of hæmatinuria. This as a complication of intermittent fever is rare, excepting in tropical climates, although I can recall two cases of this character in my own practice, one of which was contracted in Canada, and the other an importation from Florida; and in both of which the hæmorrhage was controlled only by the most heroic administration of antiperiodics. It is said that the ordinary astringents without the aid of quinine or its succedanea, are quite useless. The extreme jaundice found in such instances does not appear to be the product of a defective liver, but rather one of the results of rapid cell disintegration,

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* Read before the Ont. Medical Association, June, 1891.

As there is almost invariably more or less renal congestion present when hæmatinuria occurs, no matter what other causes may be contributory, it is common to find tube casts in the urine.

In both hæmaturia and hæmatinuria the urine will respond to the ordinary spectroscropic and chemical tests, and to the naked eye there may be no appreciable difference; only it may be said that in cases of hæmatinuria the urine is ordinarily more orless darkened, never a bright red, as often occurs in true hæmorrhage, the depth of the smoky shade varying according to the intensity of the disease; and, therefore, the only reliable distinction, apart from the symptoms and history, must be elicited by means of the microscope. It is ordinarily quite easy, by the gross appearances alone, to detect the presence of blood in the urine, in which it may appear either normal in color or having any of the aforementioned shadings; the former, if rapidly poured out, especially when of vesical origin, in which case it is apt also to be in part coagulated. Alkalinity preserves the brightness of the blood, while a prolonged retention in acid urine produces the darkened tints.

It should be borne in mind that the ingestion of various substances will discolor the urine sufficiently to deceive the eye—for example, senna, rhubarb and beetroot, will turn it red, and carbolic and salicylic acid will give it a brownish tinge.

For this reason, also because diagnosis is often urgent, even when the quantity of blood is very small, other tests than the gross appearances are required, amongst which are the following:

1st. Albumen is always present and responds to the usual reagents, but it must be remembered that true albuminuria is often a marked characteristic of the disease which causes the hæmorrhage, for example in Bright's disease; and, therefore, the proportion of albumen is not always a criterion of the actual extent of hæmaturia.

2nd. Teichmann's test—glacial acetic acid and sodium chloride evolving brownish rhombic crystals of hæmin.

3rd. With the spectroscope two dark absorbent bands are seen, one between the yellow and green and one in the green.

4th, and most important, the microscopic appearances, which include not only the corpuscles but also other organic, granular or crystalline substances, varying in character according to the diseased state and the location of the hæmorrhage, for example, in a case of renal calculus of uric acid the characteristic crystals will probably be found, together with red corpuscles, cylindrical epithelium, and perhaps granular or coagulated tube casts. On the other hand, hæmorrhagic cystitis will give, not only corpuscles, but also squamous cells, and, in many instances, phosphatic crystals.

Seeing that each part of the urinary apparatus is prone to its own peculiar forms of disease, the presence of blood being once assured, the first step towards providing a remedy is location of the lesion, and reference to the plan of procedure may be prefaced by enumeration of the diseased conditions in the order of their occurrence. I have come across a table compiled by Reginald Harrison, in which he arranges them numerically in the following order: Renal calculus, hypertrophied prostate, stone in the bladder, cystic and prostatic tumors, mostly malignant, tuberculosis, urethral stricture, cystitis, passage of oxalate or uric acid crystals from the kidney, traumatism and the irritation produced by the presence of Filaria Sanguinis. To this list might be added the parasites Bilharzia Hæmatobia and Strongylus Gigas, the latter of which is much less common in man than in some of the lower animals.

As has been said, each portion of the urinary tract, from the malpighian corpuscles down to the meatus urinarius, having its own individual histology and functions, is subject to own peculiar diseases, and therefore, as hæmaturia may accompany almost any urinary ailment, the first and most important step from this starting point towards

(To be continued.)

Dr. Peifer, son-in-law of Prof. Koch is said to have discovered the bacillus of influenza.

Correspondence.

To the Editor of the CANADA LANCET.

TORONTO, March 8th, 1892.

Dear Mr. Editor,—Some weeks ago a rumor reached me that members of the profession connected with the Toronto General Hospital were very much agitated concerning a statement accredited to me. This alleged statement was to the effect that the Local Board of Health and myself in establishing a hospital, intended not only treating persons suffering from diseases of an infectious character, but also that we purposed receiving those suffering from non-infectious disorders. Now in view of the fact that the name "isolation hospital" clearly indicated that the institution would be used only for cases of infectious disease, I did not consider it necessary to contradict this rumor.

But as I am again informed that the impression conveyed by this rumor regarding the isolation hospital still exists among many of the profession, and, further, that had they not been given so to believe, they would never have appeared before the Board of Health in the matter, I consider it but right to state publicly that this statement is absolutely untrue and without foundation.

NORMAN ALLEN,
Medical Health Officer.

Selected Articles.

THE MEDICAL TREATMENT OF CYSTITIS.

The medical treatment of cystitis does not furnish a very satisfactory chapter in therapeutics. It includes such treatment as the physician is called upon to use supposing the exciting cause, such as a stone or obstruction in the urethra, to have been removed, whenever possible. I say whenever possible, because the enlarged prostate which is responsible for so many cases of cystitis is, in the vast majority of cases, not removable even in these days of brilliant surgical results. It must also include the treatment of a certain number of cases in which no removable cause is ascertainable, as well as cases where, as with a long previous gonorrhœa, the cause has long since been removed, but has left a deep-rooted tendency scarcely eradicable.

It should be stated, too, at the outset, that the vast majority of cases of so-called cystitis are inflammations of the neck of the bladder and of that part of the urethra passing through the prostate.

Acute cystitis is far less commonly met by the physician than the chronic form, while its treatment is far simpler, and I may add, more satisfactory, at least so far as the removal of the acute symptoms is concerned. Rest in bed is a primary and essential condition. Leeches to the perineum should be applied more frequently than they are. A poultice to the same region and over the abdominal region is always useful, while a brisk saline cathartic should never be omitted.

As the feverish state which always accompanies cystitis is more or less constantly associated with a scanty urine, concentrated and irritating to the inflamed mucous membrane, it is desirable at once to increase the secretion, and thus dilute it. Copious libations of pure water, to which the citrate or acetate of potassium is added, in 15 to 20 grain doses for an adult, should be allowed. The ordinary spirits of nitrous ether in 2 drachm doses every two hours is an admirable adjuvant, and may be combined with the officinal liquor potasii citratis, which contains about 20 grs. of citrate of potassium to the half ounce. Formerly the mucilage of flax-seed or flax-seed tea was much used as a diluent menstruum for the diuretic alkalies indicated, but I am doubtful whether it is any more efficient than a like quantity of water.

Where there is much pain and straining, as is often the case, especially where cantharides is the cause of the inflammation, opium is indispensable, always in the shape of a suppository, half a grain to a grain of the extract being thus administered, or a proportionate amount of morphine. Iced water injections into the rectum, or pieces of ice similarly applied, are very efficient in allaying the pain and irritation where additional measures are needed.

The successsul treatment of *chronic cystitis* is a much more difficult task, for three evident reasons. (1) The constant presence in the bladder of the urine with its irritating qualities, especially to an inflamed mucous membrane. (2) The difficulty in getting remedies to reach the inflamed surface. (3) The pent-up inflammatory products, which in their decomposition often make the urine still more irritating by exciting in it ammoniacal changes. There is no doubt that, if the urine could be kept from entering the bladder during the existence of an inflammation, the latter would rapidly heal; that cure would be facilitated by obtaining ready escape for the pus and mucus formed in the inflammatory process; while happier results might also be reasonably expected if we could secure readier access for remedies to the inflamed areas. None of these indications can be met entirely, hence the difficulty in attaining a cure. They remain, however, the conditions to be fulfilled, and while none can be thoroughly secured, they may be approximated to in various degrees. To do this should be the object of treatment.

First, the irritating qualities of the urine may be diminished by the use of diluents, as already recommended in the treatment of acute cystitis. Almost any of the negative mineral waters, so highly recommended by their owners, are useful for this purpose, just as good as pure spring water, or even Schuylkill (river) water, and better is distilled water. From one to two quarts should be taken daily. If the kidneys are equal to their office, a large quantity of light-hued urine, of low specific gravity and relatively weak in solids, will be secreted.

When it is proposed to go further and add to the efficiency of diluents, mistakes are often made. While one can scarcely go astray in adding alkalies to the fluid ingested in acute cystitis, it is very different with the chronic form. In this the urine is often alkaline, or ready to become so on the slightest addition of alkali to the blood. Such alkalinity of urine in turn favors decomposition, the effect of which is to convert the pus, if present, into a tenacious glairy fluid which the bladder cannot evacuate. Notwithstanding this tendency, I have known liquor potassæ and other alkalies to be administered under precisely these conditions —adding fuel to the flame. The indication under the circumstances is to render the urine acid, if possible, although this is very difficult to accomplish. Benzoic acid has the reputation of doing this, and it probably is true of it when administered in very large doses. It may be given in the shape of a 5-grain compressed pill, of which at least six must be given in a day to produce any effect. The same property has been assigned to citric acid, but this is a mistake, as all of the vegetable acids, when ingested, are eliminated as alkaline carbonates.

The second indication is to medicate the inflamed surface. Two ways, of course, suggest themselves: (*a*) by the internal administration of drugs; (*b*) by the injection of medicated liquids into the bladder.

To carry out the first method, an enormous number of infusions, decoctions, and fluid extracts of vegetable substances have been suggested, the vast majority of which are absolutely useless except as they serve by their quantity to act as diluents. Among the best known of these are buchu-pareira brava, uva ursi and triticum repens. I have never known any beneficial results from any of them, and have long ago ceased to prescribe them.

The only class of remedies I have found of service in cystitis through their internal administration are the balsams. Of these the balsam of copaiba is practically unavailable, because not one stomach in a hundred will submit to its ingestion in sufficient doses or for long enough time to permit it to be of any use. On the other hand, I have found sandal-wood oil very useful, and it is about the only remedy of which I can say this for its direct effect upon the mucous membrane of the bladder. It is also comparatively well borne by the stomach, and is best administered in capsules containing ten minims. I believe it has heretofore been the usual custom to give these and like remedies after meals, but I have recently adopted the method of giving them on an empty stomach before meals. I believe they are as well, and even better, borne than when given after food, and they pass into the blood much more quickly. It is desirable to impregnate the blood and impart to the urine a balsam odor. This is scarcely possible with less than eight capsules a day—two before each meal and two at bedtime. I think I may say that I have found the so-called Santal Midy capsules, which are, I believe, nothing but a very pure sandal-wood oil, better borne than the other specimens of the oil. I have given as many as twelve of these a day for considerable periods of time without deranging the stomach.

Both boric acid and benzoic acid are useful adjuvants to the treatment of chronic cystitis through their antiseptic effect on the urine, each in 5-grain doses rapidly increased to 10. I have used resorcin in 5 to 10-grain doses, and naphthalin in 2-grain doses for the same purpose.

The application of remedies to the bladder by injections can be conveniently considered in connection with the third indication—the getting rid of the products of inflammation, the pus and mucus, and the compounds resulting from their decomposition. The latter are, of course, not always present, but all who have had much experience with cystitis are familiar with the tenacious, glairy, mucoid matter, which will not drop or rise up in a pipette, glistening with large crystals of triple phosphate, and exhaling a stinking ammoniacal odor which quickly contaminates an entire apartment. There is only one way to get rid of this, and that is to wash out the bladder, and too often this is too long deferred. Tepid water should be first used, and the injection made through the soft catheter now so invariably adopted. Sir Henry Thompson is very emphatic in his directions that no more than two ounces should be thrown in at a time, and that this should be allowed to run out, a like quantity again injected and allowed to run out, and this repeated until the water comes out as clear as it enters. In a very large experience in washing out bladders I have never met an instance in which the amount named by Sir Henry may not be doubled with advantage, so that I begin with four ounces. When this quantity is used a much shorter time is necessary to cleanse the bladder thoroughly; and after the capacity of the bladder has been determined I often throw in more, because it is sometimes useful to distend the viscus a little, for in this manner the depressions and inequalities between the muscular trabeculæ, always present in advanced bladder inflammations, are thoroughly reached. These simple injections, practised once a day, or in severe cases twice a day, often result most happily. I have seen the pus reduced from large bulk to a mere trace, and micturition reduced from five or six times to once a night. Commonly, after a few injections with plain water, I add some medication. My favorite is the salicylate of sodium in the proportion of a drachm to the pint. Its disinfecting qualities are undoubted, and I have some reason to believe that the soothing effect claimed for it is not without foundation. I have used a good deal of Sir Henry Thompson's soothing solution—of biborate of sodium an ounce, glycerin two ounces, water two ounces, and of this mixture half an ounce to four ounces of tepid water —with about the same result. Boric acid, in the proportion of a drachm to the pint, is also very satisfactory.

Alum is an astringent which has been too much overlooked of late in supporting processes in mucous membranes, and may be substituted for the salicylate with advantage where the pus does not diminish as rapidly as is desired. It should be more cautiously used than the salicylate of sodium. Sufficient of the powdered alum should be first added to a pint to give it a distinctly astringent taste, when the bladder should be washed out as described, while a small quantity may be allowed to remain after the last injection.

Where there is a foul odor present I use the bichloride of mercury in solution, but exceedingly dilute. It is almost incredible how small a proportion of this salt is irritating to the bladder, and having learned by experience, I never begin with a solution stronger than 125,000, but gradually increase the strength if it is well borne. Carbolic acid may be substituted for the bichloride of mercury, but it has not been so satisfactory in my hands.

Other drugs are recommended to be similarly used, but I have had little or no experience with them. One from which much may, with reason, be expected is the peroxide of hydrogen, one part to five of water. In the single instance in which I have used this, the patient, who had previously been using the bichloride solution, returned of his own accord to the latter, because he thought it more satisfactory. Among other remedies recommended to be used in the same way are acetate of lead, 1 gr. to 4 ounces; dilute nitric acid, 1 or 2 minims to the ounce; and nitrate of silver, 1 gr. to 4 ounces; but I have had no experience with them.

Anodynes are indispensable in many cases of cystitis, to relieve the patient of extreme pain and the frequent desire to pass water, which are the result of the same cause. Opium and its alkaloids are the most efficient, and they are best introduced by the rectum. There appears to be no absorbing power in the bladder for opium at least, and there is no use in attempting to use any anodynes by that channel.

Cocaine, from which so much might reasonably be expected, has failed of its purpose in my hands. I have injected as much as two ounces of a 2 per cent. solution into the bladder without effect, except to produce some of the symptoms of cocaine poisoning. Most disappointing, too, has been the use of cocaine to remove the exquisite tenderness of the urethra which sometimes attends this condition, and is a serious drawback to the use of the catheter.

Where there is greatly enlarged prostate, catheterization is indispensable, and is attended often with the most happy results. It is often too long deferred because of the natural repugnance to the use of the instrument. Of course the patient or his friends should be taught to use the catheter and to wash out the bladder. In these days of refined antisepticism it is scarcely necessary to say that the extremest precautions should be taken to cleanse the catheter after its use in order to avoid sepsis. There is nothing better for this purpose than the bichloride solution of 1 : 1,000, in which the catheter should be allowed to lie for a short time after being cleansed with boiling hot water.

How much can be accomplished by such treatment as the above-described? That an absolute and total cure is ever obtained in chronic cystitis is exceedingly doubtful. Hence the statement at the beginning of my paper, that the medical treatment of cystitis does not furnish a very satisfactory chapter in therapeutics. On the other hand, that a life of suffering may be converted into one of comparative comfort is certainly true, and I have many times seen it. Nay more—I have more than once seen a life prolonged half a dozen years in much comfort by careful attention to the bladder of the kind described.

It occasionally happens, of course, that all treatment of this kind fails, and yet the patient lives to be tortured by the discomfort of the situation. Three times I have had perineal section done by the surgeons for the relief of such cases, in each case with some relief, although with less than was hoped for.—James Tyson, M.D., Philadelphia, in *London Practitioner.*

A doctor in Bootle, England, has the following printed on his prescription blanks: Gratefulness of the patient is part of his disease, is most prominent when the fever is highest, lessens during convalescence, and disappears as health is re-established. Hence, prescriptions only for cash.—*Memphis Medical Monthly.*

PERITONITIS.

While peritonitis, as a disease, was well-known to physicians of all ages, a full knowledge of its pathology and an intelligent method of treatment are clearly the work of modern investigators. Its ætiology particularly was very little understood until the phenomenal advances in abdominal surgery cleared the darkness and threw light into the mysteries hidden in the abdominal cavity. Hand in hand with the surgeon worked the pathologist, and their combined efforts brought about a revolution of our views of the disease and its treatment. In no branch of medicine has such wonderful progress been made as in that pertaining to the peritoneum and the organs it invests. It is true this progress has benefited surgery much more than medicine; so it appears that peritonitis, at least many of its forms, is rapidly becoming a surgical disease. The diagnosis of peritonitis does not satisfy the progressive mind of the modern physician; he has learned the importance of striving to arrive at its cause and seat which, though *contained* in that large cavity invested by peritoneal membrane, may *belong to* any of the many organs located there. Peritonitis is, therefore, a general name for many diseases, differing not only in their symptoms, pathology, and ætiology, but frequently also in their treatment. They are only alike inasmuch as they are all accompanied by inflammation of the *lining* membrane of the diseased organs, the investing peritoneum.

To enter into detailed description of all these forms of peritonitis would be a task impossible to me without transgressing the limits of my time. I, therefore, decided to confine my remarks to two large groups of this disease which are by far the most frequent and important, the one affecting with particular predilection the male sex, especially the younger portion of it; the other is, exclusively, a female disease. I refer to peri-typhlitis or, more correctly, appendicitis and pelvic peritonitis.

Formerly most inflammatory conditions in the right iliac fossa were regarded as a typhlitis or peri-typhlitis, the former being a catarrhal inflammation of the mucous membrane of the cæcum, the latter an extension of this inflammation to its surrounding peritoneal covering and especially of the retro-peritoneal connective tissue of the cæcum, which was frequently accompanied by abscess formation in this retro-peritoneal tissue, caused generally by perforation of the cæcum through its posterior wall. These collections of pus were, therefore, thought to be outside of the peritoneal cavity. Disease of the appendix was much less connected with inflammation in the right iliac fossa. Within the last few years our views have experienced a decided change, principally influenced through the experience gained by the numerous abdominal sections made for this disease. Inflammation of the cæcum or peri-typhlitis is now regarded as very rare, at least on the primary lesion, while appendicitis is extremely common. McBurney says that, in a hundred cases of inflammation in the ilio-cæcal region, ninety-nine are cases of appendicitis.

An appendicitis may be a simple catarrhal inflammation of the mucous membrane of the appendix vermiformis, causing few or no symptoms, excepting, perhaps, some slight tenderness over the region, which may be easily overlooked, accompanied by more or less disturbance of the digestive organs and often some febrile symptoms. The appendix in such cases generally contains small fæcal concretions, which act as irritants to the mucous surface and are accused of bringing on the inflammatory trouble, though in eight cases operated by Lewis A. Stimson, in only one were there concretions of sufficient size to be justly blamed for the existing condition. Foreign bodies, such as cherry pits, grape seeds, etc., are much more rarely the cause than was usually supposed, and, according to Jacobi, it is probable that "few, if any, foreign bodies enter the process unless the latter has previously lost its elasticity and contractility by an inflammatory change." This catarrhal inflammation may be followed by a complete resolution and permanent cure, but in many cases frequent relapses occur. The appendix may not be able to rid itself of these irritating fæcal concretions, or the previous inflammation may have left a stricture at its cæcal orifice, followed by retention of its own secretion which may give rise to renewed attacks of inflammation, especially if excited by some traumatic influence. This may not confine itself to the mucous membrane, but extend to the submucous tissues and serous coat. Lymph is thrown out over its neighboring structure and adhesions are formed, encapsulating the original seat of disease, the appendix, and surrounding it by a barrier intended by nature to protect the general peritoneal cavity, should ulceration and perforation result in the appendix. An abscess now forming would, contrary to olden teaching, be intra-peritoneal, though not communicating with the general peritoneal cavity; loops of intestines, glued together, may form the abcess wall, and prevent general septic peritonitis and death. The mass often felt in the right iliac fossa is nothing else than this exudation surrounding the diseased appendix, which may have become organized into a distinct abscess wall. When inflammation and perforation come on suddenly and before nature has time to protect the general peritoneal cavity by such a provisional lymph-barrier, a violent septic peritonitis is the result, with death in two or three days. The autopsy of such a case I witnessed three or four months ago. The subject was a young, vigorous man, who was taken severely sick with peritonitis and died at the end of the third day. The whole abdominal cavity was in the condition of septic inflammation; the appendix was perforated and sloughing, containing a cherry pit, and the cæcum almost gangrenous and also perforated. In such cases there generally have been previous attacks of appendicitis, though in this instance no history of such could be obtained.

If an abscess has formed, the pus may find its way under the abdominal walls or into the retroperitoneal tissues, or it may rupture into the general peritoneal cavity, or into an intestine. Within three months I have seen two cases with rupture into the bowel. In one, a boy of 16 years, the only thing he complained of when he consulted me was inability to walk on account of stiffness and contraction of the flexor muscles of the thigh. An examination revealed a deeply-seated mass in the right iliac fossa, tender on pressure. As this mass, in spite of rest and appropriate treatment, increased in size, it was decided to operate. On the morning of the day set for the operation he had a number of stools containing evidences of pus, and the mass had almost disappeared. The other case had two attacks of appendicitis within three months, during the second of which the abscess ruptured into the bowel. In both this accident was followed by rapid recovery.

The disease may produce no symptoms outside of those of an ordinary indigestion, so long as it is confined to the mucous surface of the appendix. Severe symptoms point to a more violent inflammation not confined to the appendix alone. Such cases may be ushered in by vomiting, and sometimes purging, accompanied with severe pains, particularly in the ilio-cæcal region; the pulse is accelerated, temperature often high, face anxious. On pressure, we find tenderness over the seat of the disease; the abdominal muscles over the region are tense and rigid. Tympanites may supervene. These symptoms may continue three or four days and then gradually subside. In many cases a tumor can be felt in the region of the appendix. If these symptoms continue unabated beyond the third or fourth day, especially if tympanites increase, the pains remain severe, the pulse becomes accelerated, the temperature rises to 102° or 103° perforation and formation of abscess may be looked for. Cases beginning with violent symptoms, intense pain, severe vomiting, marked tympanites, great tenderness in the ilio-cæcal region, which rapidly spreads over the whole abdomen, rapid pulse, are of the gravest nature and denote perforation into the general peritoneal cavity. A pulse of over 120, with rapid breathing, slight cyanosis, are extremely bad prognostic symptoms, as they are the expression of toxic effect on the action of the heart.

Frequently appendicitis does not have a typical course, and its diagnosis may be very difficult. The pain may be referred to other parts of the abdomen, the cæcum being such a movable organ that displacement and change of position are not infrequent. Then, again, it may be disguised by other symptoms or complications, such as strangulation or obstruction of the bowels. Ransohoff reports twelve cases in which appendicitis ran its course without any other symptoms than those of internal sirangulation of the bowel. Hartly also reports two cases in which an operation was performed for internal strangulation, which proved to be intestinal obstruction, from adhesions to the wall of an abscess formed by a gangrenous appendix. It would therefore be well in all obscure acute cases of abdominal troubles to keep in mind how frequently appendicitis bears a causative relation to many of these acute affections of the peritoneum. In obscure cases "McBurney's point" may be of some diagnostic value. In McBurney's experience in every case "the seat of greatest pain, determined by the *pressure of one finger*, has been exactely between an inch and a half and two inches from the anterior superior spinous process of the ilium on a straight line drawn from the process to the umbilicus. This point indicates the base of the appendix where it arises from the cæcum, but does not demonstrate that its chief point of disease is there."

The large majority of cases of appendicits recover. Statistics in regard to the mortality of the disease differ greatly, however. It is a remarkable fact that German statistics show a much more favorable prognosis than those of America. Dr. Fred Lange, of New York, thinks that either appendicitis in America is more fatal than in Germany, or else the very severe cases in that country do not go to the hospitals, from which such statistics are derived. He says "Americans eat much, particularly concentrated food, masticate very little, and suffer from constipation," and are, therefore, particularily liable to this disease. Renvers treated at the university clinic in Berlin, within four years, fifty-four cases of which three died. It is also stated that out of 2,600 cases of inflammatory conditions in the right iliac fossa in the German army, 96 per cent. recovered without operation. Nothangel treated at his clinic in Vienna from 1882 to 1890, 65 cases, 55 men and 10 women, two-thirds of them between the ages of 11 and 30 years, with a mortality of three. Matterstock, however, gives out of 177 cases 30 per cent. mortality; of 70 children under 15 years, 70 per cent. Fitz, in the *Transactions of the Association of American Physicians*, states that he observed 72 cases, of which 74 per cent. recovered and 26 per cent. died.

Simple cases of catarrhal appendicitis usually make a speedy recovery under treatment by absolute rest in bed, restricted diet, laxatives, particularly calomel or the salines, morphine hypodermatically, if absolutely required for pain, hot fomentations, and possibly leeches. It is the severe forms that give the physician greatest anxiety and tax his skill to the utmost. The greatest difficulty is to decide when to interfere surgically. Unfortunately the symptoms are only too often unreliable guides; often when the symptoms indicate the necessity for operation the patient has already passed beyond the hope of relief.

Lewis A. Stimson says: "We have no means of distinguishing those cases which will go on to the formation of an abscess without accident from those in which evolution will be gravely interrupted." He therefore recommends early laparotomy (within the first three days), as it enables us to avert the process by the removal of the cause, and regards it as less dangerous than the expectant treatment.

McBurney states: "The pathological condition of the appendix as compared with the symptoms, in my own cases, most positively shows that one cannot with accuracy determine from the symptoms the extent and severity of the disease."

Mynter says: We are utterly enable to judge correctly from the symptoms alone the extent and severity of the appendix lesions, and for this reason alone abdominal section must be the safest method of treatment."

I believe that the advice of Thos. S. R. Morton, who in connection with his father Thos. G. Morton, has devoted considerable attention to this disease, and whose experience in the surgical treatment of this disease has been quite extensive, is not only good, but sufficiently conservative to meet the approval of the non-operative physician. It is, "to operate not later than the third day of the disease, if the patient up to that time has failed to markedly improve under rest, restricted diet, purgation, and topical applications. Especially should this rule be adhered to in cases where we have failed to move the bowels—they are apt to be of the fatal cases. Further than this, we should invariably operate as soon as the presence of pus is assured; when peritonitis is developing and spreading; when signs of sudden rupture of an abcess into the peritoneal cavity appear; and when septicæmia from septic absorption is taking place. In children operation must often be done earlier than in adults, as in them the the malady is more speedy in development, more fatal in tendency, and shows greater proclivity to involve the general peritoneal cavity." (Thos. S. R. Morton, Philadelphia County Society, September 28th, '91.)

Pelvic peritonitis is the most common form of peritoneal inflammation in the female. It is most frequently localized with a tendency to remain so, and follows an essentially chronic course, with occasional acute exacerbations. More so even than appendicitis is it characterized by frequent relapses. One-third of all gynæcological cases are victims of this disease. Bande found residue of circumscribed peritonitis in more than half of all female cadavers, Winkel in more than 33 per cent., A. Martin in 122 out 287 cases of tubal disease.

The cause of pelvic peritonitis or perimetritis, as it is also called, in a large majority of cases, is diseased tubes. This is a fact that has only been learned quite recently. Most inflammatory conditions in the pelvis were thought to originate in the cellular tissue, and from there sometimes to invade the peritoneum; cellulitis was, therefore, the primary and most important disease. Not later than six years ago, Emmet, in the last edition of his work on Diseases of Women, says: "I shall employ the term 'cellulitis' in expressing the most common condition of pelvic inflammation in connection with non-puerperal diseases of women. Pelvic peritonitis will not be treated of as a distinct lesion, but as an accident, rendering the case of cellulitis more grave in character from this complication." The first description of the true pathology of pelvic inflammation was given us by Bernutz and Goupil over thirty years ago, who, by a careful examination of ninety-nine cases, both during life and in the post-mortem room, pointed out very clearly that it was not the cellular tissue which was involved in this inflammation, but the peritoneum, and that the cause of it originated in the fallopian tubes. Their teaching, however, was entirely ignored until operative surgery has opened up the peritoneal cavity to detail explorations and found the conditions exactly as described by these investigators. The masses and indurations generally found in the pelvis by bi-manual examinations and spoken of as exudations in the pelvic cellular tissue can be removed by the surgeon from the peritoneal cavity; they do not involve the cellular tissue to any extent, but consist of ovaries and tubes folded upon themselves, matted together by exudation and adherent to the posterior surface of the broad ligament of the uterus. Frequently we find also intestines, and omentum of an appendix as part of the tumor. Polk, in 1886, in a paper on the "Study of Sixteen Cases of so-called Pelvic Inflammation Known as 'Pelvic Cellulitis,'" states that abdominal section was made in all these cases and the lesions found were salpingitis, peri-ovaritis, and pelvic peritonitis. In two of ten cases there was slight œdematous swelling of the cellular tissue in the broad ligaments, just beneath the spot at which an inflammed tube had rested; in the remainder, the most careful examination failed to detect the slightest induration or swelling in any part of the cellular tissue that lay about the uterus or between the layers of the broad ligaments."

Dr. N. C. Coe (Exaggerated Importance of

Minor Pelvic Inflammations) says: "Of half a dozen fatal cases of hystero-trachelorrhaphy and incision of the cervix in which I enjoyed the rare opportunity of studying carefully the sequence, in every instance the cause of death was acute diffuse peritonitis." In regard to the more chronic cases to which circumscribed areas of inflammatory exudations were found, he states that "peritonitis is certainly the most prominent element in most of these cases, so far as the post-mortem appearances afford any light;" and again: "By far the greatest number of these indurations are situated high up in the broad ligaments and consist of cicatricial masses, mostly confined to the peritoneum of tubes and ovaries surrounded by old adhesions or occasionally an imprisoned knuckle of intestine. I confess that I have rarely (perhaps half a dozen times) found such thickening in the cadaver which could be referred to a pure and straightforward cellulitis, and this, too, when I have recognized by the vaginal touch (before and after death) what seemed to be an induration, a distinct band extending outward from a deep laceration of the cervix, or a condition of tension in or above one lateral *cul de sac*, which did not exist on the opposite side."

Joseph Price, who has been in the abdominal cavity oftener than any other American surgeon, says: "The operative gynæcologist does not find any pelvic cellulitis." Lawson Tait is equally emphatic on this subject.

Having established that cellulitis is a rare disease, at least outside of the puerperium, and that what we used to regard as such is in reality in the large majority of cases a pelvic peritonitis from the outset, we will now briefly inquire into the ætiology of the latter. A diseased tube is usually the focus from which the peritoneal infection starts. Disease of the appendages may have preceded the attack of peritonitis for weeks or months, when a leaky tube may precipitate a peritonitis; that is, the secretion pent up in the tube may discharge through the abdominal orifice of the tube into the peritoneal cavity as the result of hyperdistension, trauma, violent exertion, etc. Or the tubal disease may arise acutely, and extend at once to the peritoneum, the most common causes in producing inflammation of the uterine adnexa, being puerperal infection, gonorrhœa, extension of an endometritis to the tubal mucous membrane, a catching cold, especially during mensturation, etc. Unskillful intra-uterine treatment, minor operations about the cervix, such as Emmet's operation, dilatation, etc., especially if not done with the strictest antiseptic precautions, are frequently followed by salpingitis, and, subsequently by peritonitis; the introduction of an unclean sound, especially if it produce a lesion to the mucous or muscular surface of the uterus, frequently results in pelvic inflammation. The symptoms of pelvic peritonitis vary considerably in intensity; while often so mild as to escape our attention, its onset may, especially if due to a leaky pus-tube, be so sudden, severe, and violent as to resemble a peritonitis following perforation. The disease is usually ushered in by a chill, fever, more or less severe pains in the lower part of the abdomen, back, and and thighs, irritability of the bladder, sometimes rectal tenesmus. The hypogastric region is tender on pressure and vaginal examination very painful. Within forty-eight hours a swelling may be noticed on bimanual examination, which in a few days may reach to the umbilicus. It is, at first, soft, baggy, almost fluctuating, but gradually becomes firmer until it often appears as hard as a board.

Under rest, opiates to relieve suffering, hot fomentations and after the febrile symptoms have subsided, the iodides internally and tonics, and the local application of iodine over the abdomen and to the vaginal vault, hot douches, glycerin tampons, iodoform, ichthyol, etc., the exudation gradually decreases until after a few weeks or months it has become imperceptible. The patient's appetite has improved, her pains have lessened or disappeared entirely, she is gaining flesh, and regards herself as cured. The inflammation, however, does not always run such a smooth course. Instead of ending in resolution it may go on to suppuration. Abscesses form and may discharge through vagina, rectum, bladder, abdominal walls, or intestines. They may then heal spontaneously, very rapidly, or they may continue to discharge indefinitely, until the patient dies from exhaustion or sepsis, unless surgical measures are adopted. Even if the disease ends in resolution, this does not always mean cure; on the contrary, it is often followed by a life of misery and suffering. When the patient returns to her ordinary duties she finds that she is unable to fulfil them. She has aching in her back, abdominal pains, increased on slight exertion, disturbance of her gastric functions, and other reflex symptoms. Her menses are more profuse than formerly, and more painful, marital relations are accompanied with suffering, or may become utterly unbearable; in that she presents the picture only too familiar to every physician practising in gynæcology. Examination reveals extreme tenderness over one or both uterine adnexa; perhaps some thickening in the region of tube and ovary; or you may find large masses in the region of tube and ovary and filling up Douglas' pouch. In other words, while all active peritoneal inflammation may have subsided, the focus of the disease, the diseased appendages, have remained, and wait only a favorable opportunity to light up another acute pelvic peritonitis. I have seen three and four such attacks within one year. Such cases will probably go on from bad to worse until these diseased appendages are removed. For the sake of convenience the results of pelvic inflammation may be tabulated in five groups:

1. Complete resolution and recovery. ' Such cases are restored to perfect health and are able to bear children.
2. Adhesions about ovaries and tubes which, however, do not affect the general health of the patient, but are frequently associated with sterility.
3. Recovery, with a catarrhal salpingitis and possibly oöphoritis, which, under proper but often prolonged treatment, improve and often get perfectly well.
4. Includes cases of old and obstinate forms of salpingitis, hydrosalpinx, and oöphoritis, who pass from one physician to another, or from one quack to another, and are doomed to permanent invalidism unless relieved by the removal of the diseased organs.
5. The last are principally the victims of grave puerperal infection or gonorrhœa, suffering from pyosalpinx and ovarian abscess, which are certainly threatening their lives, and are only curable by laparotomy.

In concluding this rather lengthy paper I make no claims to originality or thoroughness in treating this important subject. I am well aware that it is merely a fragmentary exposition of the subject presented. Many points that seemed of particular importance to me have been dwelt upon rather in detail, while others, undoubtedly appearing equally or more important to some of you, I have only touched upon. Any omissions in this paper will, without doubt, be supplied in the discussion, which, I hope, will be full and exhaustive.—O. Werder, M.D., in *Am. Lancet.*

NOTE OF A CASE OF TUMOR OF THE BRAIN, THE RESULT OF AN APOPLEXY.

W. M——, aged thirty-three, was admitted into the Carlisle Asylum on Nov. 17th, 1870. He had not been considered well in mind for six years; when a child he had had fits. Though none of his near relatives had been in an asylum, some of them had been very peculiar. Previous to his admission he had been dull and morose, wishing himself dead, and threatening to injure his father.

On admission he was found to have a good memory, to speak coherently, to reply to questions correctly; but he was in a state of very considerable depression, as shown by his appearance, attitude, manner, conduct, and remarks. A careful note was made of his bodily condition, but I need merely quote that he was a dark-complexioned man of 5 ft. 11 in. in height, and 167 lbs. in weight. His temperature and pulse were both slightly above normal, but no disease was detected in his various organs. For some time he was returned as being dull and taciturn, seldom conversing with others and always very peculiar in his conduct and habits, never wishing to leave the place, and on the whole industrious and in good health. For nine years he continued in this state, but in October, 1879, he complained of rheumatic pains for a short time. Only once or twice during this period did he show real signs of being dangerous to others, on one occasion attacking a fellow-patient with a spade. Both attendants and fellow-patients thoroughly recognized that he was not a man to be trifled with, so that for the most part he got his own way, and therefore behaved quietly. In October, 1886, after sixteen years' residence, physical examination showed no indications of disease, except that the respiratory murmur over the right apex was harsher than over the left. His heart was carefully examined, and nothing abnormal was detected about it. In January, 1891, he did not look quite so well as usual, and was therefore allowed one pint of porter daily, but at this time he was 17 lbs. heavier than when he came in. On July 3rd he had a paralytic seizure, with slight loss of power on his right side. He complained of a feeling of giddiness, but there was no change in his mental condition, and he spoke as usual. On July 12th he had a fit, after which the paralysis increased. His right arm remained powerless but his leg shortly regained power. During August the patient improved, regained a certain amount of power in his right arm, and more in his leg. In the first half of September he deteriorated, his arm and leg dwindling considerably, and he was reported to have had several slight fits at night. On Sept. 15th a pustular eruption like a half oval in shape appeared over the lower part of the abdomen. He became suddenly comatose on Sept. 30th, and continued so till his death on Oct. 3rd, 1891—three months exactly after the date of his first attack. I thought his first seizure due to an apoplexy in the left hemisphere, in the region of the centres controlling the arm and leg. I considered that the slight fits which were from time to time reported as affecting him at night (though I never was fortunate enough to see him in one) were caused merely by the cerebral irritation consequent on altering blood-clot; and I thought the final attack with complete coma was due to a further and more extensive hæmorrhage, probably in the same locality as the first. In considering the patient's case the question of brain tumor was discussed; but I decidedly favored the diagnosis of apoplexy from the suddenness of the initial seizure, the partial recoveries of power which took place in the implicated members, the absence of the train of mental phenomena usually witnessed with growing tumors, and the character of the final and fatal seizure.

A post-mortem examination was made forty-one hours after death. The body was rather emaciated. The organs were carefully examined, their condition noted, and their weights recorded; and, with the exception of the brain, they were so far normal as not to call for comment. I shall therefore merely quote from my register the account of the appearances of the contents of the skull. Head: scalp thin, calvaria thickened; dura mater was not adherent to the bone, nor was it thickened. The state of the other membranes does not call for notice. On separating the hemispheres there was found to be a tumor the size of an orange in the right hemisphere; it was placed immediately above the lateral ventricle of that side. In consistence it was firm; it appeared encapsuled, and required no dissection to remove it from the brain. The tumor included the gyrus fornicatus and corpus callosum, or had displaced these and caused their atrophy; it lay rather more posteriorly than anteriorly. It did not cause any change in the appearance of the surface of the brain, and its presence could not be detected till the hemispheres were separated. The tumor weighed five ounces. Section of the brain shewed no naked-eye changes other than atrophy of the grey matter. The arteries at the base were atheromatous. I examined a minute portion of this tumor, and found large, round, and spindle cells; but I was so much astonished at finding such a large tumor with such a short known period of illness, with such an onset and train of symptoms, that I asked my friend, Dr. Coats of Glasgow, to examine the tumor and give me a report upon it. I told him I had diagnosed sanguineous apoplexy, and that I was exceedingly surprised at the post-mortem revelations. The following is the report with which Dr. Coats kindly furnished me:—

"The specimen sent is a pyriform mass, measuring, after preservation in alcohol, 2¾ in. × 2⅜ in. × 1¾ in. It is very firm to the touch and generally smooth on the surface. A section having been made through the mass from apex to base, the cut surface is seen to present a somewhat varied appearance. The greater part shows a brown color, and this presents frequently an appearance of partial disintegration, but without any absolute formation of cavity or cyst. Besides this brown substance there is a whitish structure which looks like fibrous tissue; this is especially seen at the surface, where there is an approach to a capsule formed by this fibrous-looking tissue; but it also extends at one place for some distance into the substance of the mass. Microscopic examination shows the layer on the surface to be composed essentially of spindle-shaped cells. This layer is not absolutely continuous, but covers most of the surface, and it is thin, attaining generally to about the thickness of the twenty-fifth of an inch, although sometimes extending considerably more. In connection with this layer, but even more in the parts immediately beneath, there are frequently groups of large vessels, thin-walled and distended with blood. Beneath the spindle-celled layer the mass of the tumor is composed of a rather indefinite structure. There are many round cells, which to a considerable extent lie in masses separated by fibrous matter. This fibrous matter has, when the section is treated by ordinary methods, a vague structureless appearance. It runs among the cells forming a kind of basis, and often assuming greater proportions, so as to form strands dividing the masses. It has not, however, the aspect of wavy connective tissue, and on staining it shows no nuclei apart from those of the contained round cells. The appearance of this fibrous matter, suggested fibrine, and this view is completely confirmed by staining with Weigert's fibrine stain. This brings out frequently the finely fibrillated appearance of fibrine and shows that it extends intimately amongst the cells."

Dr. Coats is of opinion that this has been a large blood-clot, which was undergoing the process of organization. The stages of this process are similar to those in the organization of a thrombus, as described and illustrated in Coats' Manual of Pathology, second edition, p. 70. After the blood has coagulated there is first a penetration and replacement of it by round cells and blood-vessels, this being the stage represented in the greater part of the present specimen. After this the round cells elongate and spindle cells are produced. The process extends from without inwards, and here the surface has alone got the length of spindle-cell tissue. It is very unusual for a coagulum to undergo this process in the brain, but it is also very unusual for a patient to survive after such a large hæmorrhage as this must have been.—J. A. Campbell, M.D., in *Lancet.*

HYPNOTISM AND HUMBUG.

At the base of the brain is a complete circle of arteries, from which spring great numbers of small arterial vessels carrying a profuse blood supply throughout the whole mass, and capable of contraction in small tracts, so that small areas of the brain may, at any given moment, become bloodless, while other parts of the brain may at the same time become highly congested. Now, if the brain, or any part of it, be deprived or partially deprived of the circulation of blood through it, or if it be excessively congested and overloaded with blood, or if it be subjected to local pressure, the part of the brain so acted upon ceases to perform its functions. The brain's regularity, and the sanity and completeness of the thought which is one of the functions of its activity, depend upon the normal quantity of blood passing through all its parts, and the healthy quality of the blood so circulating. If we press upon the carotid arteries which pass up through the neck to form the arterial circle of Willis at the base of the brain within the skull, we quickly produce insensibility. Thought is abolished, consciousness is lost; and if the pressure be continued all automatic actions of the body—such as the beating of the heart, breathing motions of the lungs, which maintain life, and which are controlled by the lower brain centres or ganglia—are quickly stopped and death follows.

We have observed (where portions of the skull have been removed) that during sleep, the convoluted surface of the upper part of the brain, which in health and in the waking state is faintly pink, like a blushing cheek, becomes white and bloodless. It is in these upper convolutions that the will and directing power resides; so in sleep the will is abolished and consciousness fades gradually away as the blood is pressed out by the contraction of the arteries. The same effect is attainable by altering the quality of the blood passing through the brain, by chloroform or other toxic substances. Though not conscious of the mechanism producing arterial contraction and bloodlessness, we are not altogether without control of it. Some possess marked control over it. I can generally put myself to sleep at any hour of the day, either in the library chair or in the brougham.

Now, a word regarding what is meant by reflex action. The nerves leading from the various organs to the brain convey swift messages to its various parts, which are answered by reflected waves of impulse. Tickle the soles of the feet, and you excite contraction of the toes, involuntary laughter, or perhaps only a shuddering and skin-contraction known as goose-skin. The irritation of the nerve end in the skin has carried a message to the involuntary or the voluntary ganglia of the brain, which has reflected back nerve-impulses contracting the muscles of the feet or the skin-muscles, or giving rise to associated ideas and laughter.

This ideo-motor or sensory motor system of nerves can thus produce automatically and without the consciousness of the individual, a series of muscular contractions. And the coats of arteries are muscular and contractile under the influence of external stimuli, acting without the help of consciousness, or when consciousness is in abeyance. Let me give one more example of this, which completes the chain of phenomena in the natural brain and body which I adduce in explanation of the true, as distinguished from the false, or falsely interpreted, phenomena of hypnotism, mesmerism, or electro-biology. When a hungry boy looks into a cook-shop, he becomes aware of a watering of the mouth and a "gnawing" at the stomach. The brain has sent a message which has dilated the vessels around the salivary and gastric glands, increased the flow of blood through them and quickened their secretion. Here we have a purely subjective mental activity acting through a mechanism of which the boy is quite ignorant, and which he is unable to control, and producing that action on the vessels of dilatation and contraction which, as we have seen, is the essential condition of brain activity and the evolution of thought, which is related to the quickening or the abolition of consciousness, and to the activity or abeyance of functions in the will centers and upper convolutions of the brain, as in its other centers of localization.

Here, then, we have something like a clue to the phenomena of hypnotism. The will may be easily abolished under the influence of imagination or sudden impression, even in animals the least imaginative and physically most restless and active. I take a cock from the barnyard, and notwithstanding his struggles and screams, place him quietly and firmly on a level board and draw a chalk line from his beak, which I have depressed until it touches the board, and he remains there motionless and firmly hypnotized. Rabbits, guinea-pigs and other animals may be readily hypnotized. Position, tactile impression, and possibly also mental impression, are the means used.

I come now to consider the subsequent conditions of the person who has submitted to any of the processes of hypnotization or mesmerism. The individual is reduced, more or less perfectly, to the state of a living automaton. The upper brain is more or less completely and regularly bloodless, and its functions in abeyance. The will is abolished, suspended, or enfeebled. Sleep has been induced while the thought has been on the operator, and the suggestion which he makes or the directions which he gives are carried out without the intervention of the will of the subject, and more or less completely without his knowledge.

He is an instrument on the keys of which the operator may play his own tune.

It may be asked, what are the added powers of clairvoyance, prediction of future events, insight into hidden things, etc., often attributed to somnambulists and hypnotics, and so frequently employed as means of extorting money. The answer is given in the one word—*Imposture!*

It is well known that a hypnotic can be led to perform, under influence of suggestion, acts which are dangerous to himself and others, and which are in themselves criminal—to thieve, to commit arson, or to attempt violence—and there is reason to believe that certain subjects can be made to receive a suggestion having in it a time element. Such a subject can be told, "On this day week, at a given time, you will return to the hypnotic state, go to a given place, steal such and such property, attack such and such a person, and you will not remember who gave you the direction."

There is a time element in all nerve actions, and the operations of the brain. A person going to sleep at night says: "I will wake at six o'clock to-morrow morning, for I have to catch a train;" and he does it. This is a familiar example of a deferred suggestion, operating at a moment indicated several hours before. Ague chills are known to return at a certain hour every third or fourth day. The sensation of hunger is periodic according to habit of the hour of eating. The periodic chronometric and involuntary operation of the nervous system is imported into hypnotism.—Ernest Hart, in *Nineteenth Century*.

NERVOUS DYSPEPSIA.

Gentlemen:—Here is a young woman, twenty years of age, whose family history is entirely negative, and whose previous history, up to the time she was thirteen years of age, was also practically negative. When thirteen years old she began to menstruate, and from the time she began to menstruate she complained of exceeding great pain for a couple of days prior to the menstrual discharge. She has also had pain and nausea subsequent to the disappearance of every menstrual discharge. She has had, in short, dysmenorrhœa. Now, after this had gone on for a couple of years, she became a little more and more nervous, as she expresses it. She developed a neurotic constitution—became a neurasthenic. For the last four or five years she has been troubled with symptoms referable to the stomach.

You may recall the case I showed you last Monday of chronic gastric catarrh with well-marked dyspepsia. You will remember the local symptoms and the general symptoms of that case. Now, strange to say, in nervous constitutions we have appearing every symptom of dyspepsia that you will find in cases of chronic gastric catarrh—local tenderness, eructations of gas and acid, vomiting, pain after eating, headache, hypochondriasis, and so on—almost a complete picture. But there is one great difference to be remembered, and that is in respect to the etiology and history obtained from the patients. Where you get such a history as we have have here, in women—namely, a derangement of the menstrual function, with subsequent nervousness with dyspeptic symptoms, and without any anatomical basis for the condition, so far as the stomach trouble is concerned—you have the factors entering into a case of so-called nervous dyspepsia.

There is a difference, however, in the manifestation of the symptoms that will guide you in making a correct diagnosis. For instance, she tells us that four or five years ago she began with attacks of dyspepsia, but that during the intervals between the attacks she would be perfectly well—could eat anything and everything, and found them to agree with her. But when the attack was on, she would have distress, choking sensations after meals, more or less pain, and eructations of gas. She would have, just prior to the expression of the symptoms just mentioned, extreme nervousness from some cause or other, such as mental worriment, great excitement, etc., which seemed to attack her digestion, causing the symptoms I have mentioned. Frequently vomiting occurred. She tells us she would vomit whether her stomach was full or empty; would vomit mucous and watery matter; provided she was extremely nervous, or under excitement, or worried very much at the time. So you see we have here the influence of the mind upon digestion distinctly manifested. The history here, with reference to the vomiting, is different from what you get in chronic gastric catarrh, in which case the vomiting occurs with some degree of regularity, more especially when indigestible substances have been taken, Not so here, for at one time she could eat anything; at another time the simplest article of diet would bring on dyspepsia. This girl had also local tenderness; but that, too, in these cases, is somewhat different from what is found in chronic gastric catarrh. In this girl's case it is only present at times; in chronic gastric catarrh the tenderness is apt to be present at all times. So in these cases of nervous dyspepsia, all the symptoms are subject to complete remission or great variations; in the other, their permanence is a reliable guide. In this case, it should be stated, the disease has been coming on for the last four or five years, attacks occurring every three or four months, under excitement or mental influence.

Now we come to consider the prognosis of this case as compared with that of the cases I showed you one week ago, of chronic gastric catarrh. The latter cases are long ones, are slow in recovering; but these now under consideration are even more so, unless you can change the patient's surroundings, unless you can remove the exciting cause of the attacks, and unless you can improve the general nutrition and nervous condition of the individual. The mental and moral conditions influence and determine the prognosis in cases such as this.

I am very desirous of calling attention to one other rather unusual feature in this girl's case. She gives a history of muscular pain, more particularly in the left arm and left leg. In cases of nervous dyspepsia you sometimes have muscular pains, and along with these pains, as in this case, you have coolness of the extremities. This is not rheumatism, but is due to a neurasthenic condition under these circumstances.

As to treatment, you want to remember in the first place what I told you about removing the cause. If you can get these patients away from their old surroundings, if you can prevent sudden excitement, lively expectation, great emotion, and at the same time place them in a pleasant environment, that will go a great way toward working a cure. Then, in the next place, do not show any anxiety yourself when treating cases of this kind, especially as to the prognosis. When asked, tell your patients, who are suffering from conditions of mind such as this girl is in, that their stomachs can digest sufficient food of the proper kind, that a little treatment will make them better, and so, if you can get their mental states under control, you can help them. Having done this, tell them to eat wholesome food and plenty of it. Do not begin by restricting them too much. As soon as they find they can digest a moderate amount of food, they will be willing to go further and allow themselves a liberal diet, as they should do. There should be but little medicine given, and this should be for the purpose of building up the nervous system. Cold sponging of the whole body, and other hygienic measures are very important.

We shall order the attendant to take a sponge, wring it out in cold water, and rub it several times up and down the spine, followed by friction with the aid of a coarse towel. That slight shock, repeated daily, will be very good in her neurasthenic condition.

She should take to exercise in the open air, and, if it were possible, travel, making a complete change of air. In addition, I will give nerve tonics. The best in these cases, more especially when associated with what we frequently find, a hysterical temperament, are the valerianates of iron and zinc. This girl, however, is not inclined to be hysterical. Phosphorus is a good remedy, as is also sulphate of strychnine.

MEDICAL NOTES.

Prof. Keen said that in *Septicæmia* alcohol is *the* treatment. It must be given fearlessly, and even pushed to the verge of intoxication.

Prof. Cohen recommended the following very highly for use in the treatment of *Nasal Catarrh*:

℞.—Sodii bicarbonat., ... ℈j.
Glycerini, ... f℥iv.
Infus. picis liquid., ... ad f℥iv. M.

Can be used as a spray or wash, or douche. Should be used warm.

Prof. Parvin does not believe that properly applied *pessaries* ever produce cancer. If cancer does follow the use of them, *they* are not the cause of the disease, but the condition must have already existed in the patient.

For a case of *Cardiac Dilated Hypertrophy*, with double valvular lesions (aortic and mitral regurgitation) in a boy 15 years of age, with a history of acute rheumatism, Prof. Da Costa prescribed tinct. strophanthi, gtt. v, three times a day; and also syr. ferri. iodidi, for the anæmia and as a tonic; and a strengthening diet, of meat principally.

For a young man who had general *Convulsions*, with almost complete loss of memory, probably due to an injury to his head, of which very little history could be obtained, Prof. Da Costa prescribed: Sodii iodidum, gr. x, three times a day; also, sodii biboras, gr. x, three times a day. His diet to be of a non-stimulating character.

For a case of *Supra-orbital Neuralgia* in a middle-aged woman who was very anæmic, Prof. Da Costa prescribed:—

℞.—Ferri sulphat.,
Pottassii carbonat, āā gr. iss. M.

In pill three times a day, and increased to four or five times a day. She had been treated for the neuralgia by the use of aconitia, which had given temporary relief, but the neuralgia having returned, Pro. Da Costa said that he thought it was due chiefly to the anæmia.

For *Incontinence of Urine* in children, due to exposure to cold, Prof. Hare recommended the following treatment:—

Where the urine is high colored and concentrated, and the child has fever, give—

℞.—Tinct. aconit., . . . gtt xij. to xxiv.
Spirit. ætheris nitrosi, f ʒ ij. to iv.
Liq. potassii citratis, ad f ʒ vj. M.
Sig.—A dessertspoonful every three hours.

After the urine has become more dilute, belladonna can be given with advantage, to allay the irritation and spasm of the bladder.

Or when the incontinence is due to paralysis of the bladder, give—

℞.—Extract. nucis vomicæ, . . gr. ij.
Acid. aseniosi, ... gr. $\frac{1}{3}$. M.
Fiant pil. xx.
Sig.—One pill three times a day.—*Col. and Clin. Rec.*

ARE AMMONIA AND ALUM TO BE TOLERATED IN BREAD?

The medical profession say no. If they will continue to say it with one voice, and a loud one, they can suppress these injurious adulterants. For nobody wants them. The only cause for the daily drugging of millions on millions of our people, with these compounds in their bread, is the fradulent practice of certain great baking-powder concerns, who undersell or out-advertise honest dealers by smuggling in the "cheap and nasty" ingredients under the false label of "absolutely pure baking powder." That it is not the choice of the people to be so drugged, even for cheapness' sake, is proved by the continental lying in which millions of dollars are spent to assure consumers that these cheap-made baking powders —from the 45-cent "Royal" down to the 25-cent fraud under a hundred aliases—are what they are not. If the true composition of the "Royal" ammoniated baking powder, or of the ammoniacal-alum powders vended under hundreds of fancy trade marks and grocers' firm names, were printed on each label, or confessed in their advertisements, they would disappear at once from the market, for nobody would buy them. The people, in short are cruelly deceived and wickedly swindled, in the sale of every can of these poisoned preparations.

Now, however, to counteract the effect of recent exposures of this infamous deception, the great ammonia concern resorts, anonymously—still concealing its own identification with the adulterant—to a world-wide circulation of quasi-medical recommendations of ammonia as a harmless and even beneficial element of diet! These insidious fabrications come to us, to everybody, from over land and sea, in the scientific news departments of leading public journals, as well as following ones; and that they are paid for at enormous rates, to appear in this guise, by the Royal Baking Powder Company, we have direct evidence from the advertisement desks of such papers as the *New York Tribune* and its compeers. Indignant at this outrage on sanitary truth and public creduality, we sent out a circular to our medical subscribers and the members of the larger medical societies of New York and Brooklyn, with a few minor cities, asking public answers to the following question:

> "Do you consider advisable the habitual use of food in any degree qualified by ammonia?"

The answers—of course practically unanimous in the negative—at once began to pour in, and they are pouring in still. We undertook, by implication, to print them; but they are rising into the thousands, and full of varied and important testimonies from medical experience, so that we can print in this number but a moiety of the mass of information, with the decisions in brief of the host of professional correspondents who have so generously favored us; contained as far as possible in eight supplemental pages of this number, and to be continued in subsequent issues, as they continue to arrive.

"The more the merrier;" and we hope that those who receive this number and have not already answered, will add their testimony to the great volume of the same contributed by others, so that the potent voice of the profession may be uttered, as we began by suggesting, loud enough to be heard from shore to shore of our great country. —*Sanitary Era.*

ON TAKING A FLUID WITH MEALS.—A great deal of misapprehension is often found to exist in the popular mind in regard to matters of eating and drinking; the cause of this, to some extent, is to be traced to old-time sayings which have come down to us in the form of a concentrated infusion of somebody's opinion upon a subject of which he or she was woefully ignorant. One of these misapprehensions to which we may refer is as to the injuriousness of taking fluid with meals. One frequently hears it laid down as a maxim that "it is bad to drink with your meals, it dilutes the gastric juice." By way of explanation we may remark that "it implies that the fluid taken is harmful." Whence this sagacious postulate originally came we cannot tell; it has quite the ring about it of an inconsequent deduction formed by a person whose presumption of knowledge was only exceeded by a lamentable ignorance of the subject. Medical men often find much difficulty in dealing with these museum specimens of antiquated science, for even educated persons are disposed to cling to the absurdities of their youth. Upon this matter Mr .Hutchinson remarks in the last number of his "Archives:" "I observe with pleasure that the verdict of general experience and common sense has been confirmed by scientific experiment in the matter of taking fluid with meals." Dr. Tev. O. Stratievsky, of St. Petersburg, after elaborate trials, has found that fluids materially assist the assimilation of proteids, and announces the following conclusion, which it is to be hoped no future experiments will controvert: "On the whole, the widely-spread custom of taking fluids during or just before one's meals, proves to be rational and fully justified on strict scientific grounds. To take fluids with the meals is almost as important an adjunct to digestion as is the mastication of solid food preparatory to swallowing it." It is obvious, however, that there is a limit to the amount of fluid one can swallow with impunity—not to speak of comfort—just as much with meals as at other times. It would be dangerous to create a general impression that fluid is good with food irrespective of quantity. It is, moreover, a well-ascertained clinical fact that an excess of cumprandial fluid does retard digestion in certain people, and gives rise to discomfort in most. A little attention to one's sensation in such matters will far better fix the desirable limit than all the "data" in the world. —*Medical Press and Circular.*

TREATMENT OF GANGRENOUS INTESTINE IN STRANGULATED HERNIA.—Heydenreich states that at present it is impossible by study of the published statistics to arrive at any definite conclusion as to the mortality after the establishment of an artificial anus in cases of gangrenous hernia. With regard to the results of resection of intestine in like cases, it might be fairly stated that the successes and the failures are about equal in number. Should it be assumed that the two methods have the same gravity, resection of the intestine would yet possess a decided superiority over the practice of forming an artificial anus. The former treatment would result in cure with much less loss of time, and would save the patient from a very unpleasant infirmity. In order, however, that resection of the intestine may be undertaken with real chances of success, it is indispensable that certain conditions be found united. As the operation will be a long and difficult one, the patient's strength should be such as to enable him to support the shock, and, on the other hand, the surgeon should have confidence in himself, be well assisted, and have at his disposal all the resources of the antisepetic method. The great danger of interorrhaphy consists in the effusion of fæcal matter into the abdominal cavity, in consequence either of failure of the means of union or of extension of the gangrene. Thus it is necessary that at the time of the operation the intestine be not too much distended by fæcal contents, the passage of which might cause the sutures to give way. The sutures also ought to be applied to absolutely healthy intestine. If such conditions cannot be realized, it would be better, the author holds, to reject the idea of enterorrhaphy, and to rest content with forming an artificial anus. The latter procedure takes less time for its performance; it can be carried out by any surgeon even without experienced assistants, and under ordinary material conditions. Finally it does not cause such serious shock as interorrhaphy. The immediate danger is certainly less. The formation of an artificial anus, therefore, it is held, is indicated whenever the general condition of the patient is unfavorable, or when the conditions in which the operation has to be performed are defective. It is always open to the surgeon, after the primary danger has ceased, to intervene sooner or later, in order to relieve his patient of the artificial anus, by means of resection and suturing, or some other method.—*Brit. Med. Jour.*

Typhus Fever in New York.—The most serious outbreak of typhus fever that has occurred in the country for many years, became known to the health authorities of New York late on the night of February 11th, and on the following day no less than fifty-eight cases of the disease were discovered. On January 30th the French steamer "Massilia," of the Fabre line, arrived with 717 steerage passengers. Two hundred and fifty of these were Russian Hebrew immigrants who were aided by funds provided by Baron Hirsch, and they were first transported from Odessa to Constantinople, whence they hoped to be able to go to Palestine and settle. Being disappointed in this, through the action of the Turkish authorities, they came to Marseilles, where they embarked on the "Massilia," together with a considerable number of other immigrants of various nationalities. The steamer, on January 1st, took on board more than 200 Italians, and on January 12th she sailed from Gibraltar. On the ship's arrival eleven passengers were ill, three of them with what was believed to be typhoid fever, but which, as the sequel shows, was undoubtedly typhus.

On the day following, February 12th, eleven additional cases were discovered among the Russians. Every effort was made to trace the Italian and other immigrants who came on the "Massilia," but it was found that many of them had left the city. On February 13th, five additional cases of typhus were found among the Russians from the "Massilia;" February 15th, seven more cases; February 16th, six cases at Oakdale, Mass.; and each day is adding to the list. There are, at time of writing, eighty-nine cases at North Brothers Island.

The whole country is more or less alarmed and disturbed, and really in a certain measure endangered by the living freight which this steamer has been allowed to land upon our shores after it had been refused the hospitality of the intelligent Turk.

We have thought it worth while to put together the main facts in the case as an illustration of the daily folly which we, as a nation, are permitting to be committed in the beautiful name of freedom, to the relief of other countries, the profit of a lot of steamship companies, the gradual degradation of our population, and the positive diminution in the safeguards for life, liberty and the pursuit of happiness which those already living here would like to be assured of. We open our doors to squalor and filth and misery—which mean typhus fever—and we admit leprosy, almost as if these things were blessings in disguise.

The reports of the Treasury Department show that for the last six months of 1891 the number of immigrants coming from Russia (Poland excepted) in those months was 46,710, as against 20,934 in the corresponding months of 1890. The whole number of immigrants was greater in 1891 than in 1890 by about 100,000, and nearly half of this increase is ascribed in the reports to Russia and Poland.

As sanitarians, with this text before our eyes, we desire to add our indignant protest to that expressed by the eminent statistician, Gen. Francis A. Walker, in a recent lecture against the results of our immigration laws. There are times when charity should begin at home.—*Boston Med. and Surg. Jour.*

Antipyrin in Whooping-Cough.—The writer sums up his hospital experience as follows: About eighty cases of whooping-cough have been recently treated here with antipyrin, as many decigrammes as the child was years of age (or xv. grs. for a patient of ten years) being given morning and evening. The remedy was gratuitously given to the parents in powder form and ordered to be administered in sweetened water. Fifty-seven of the cases were seen at least twice again, so that a definite opinion could be formed of the action of the remedy. In 41, improvement was evident at the second visit (after three to seven days), and in some cases the improvement could be characterized as striking. In five cases, alleviation of the symptoms was not distinctly affected till the third or fourth visit. The improvement was only temporary with five of the patients; three of these had brothers and sisters simultaneously suffering from whooping-cough. Generally it was found that where several children of the same family were affected at the same time, the disease was more obstinate and ran a more tedious course. This is consistent with the opinion of Prof. Hagenbach that the children mutually reinfect one another under such conditions. No improvement could be traced in seven cases (three of these, however, were only seen twice), and four patients got worse at first; these were, however, such as had only recently (from three to ten days) developed the characteristic symptoms of the disease, and three improved subsequently.

Of the numerous cases that only returned once to the hospital a considerable proportion would doubtless be such children as were so much benefited by the remedy that the parents did not think it necessary to bring them again. In several instances an unmistakable relapse was evident when the administration of antipyrin was omitted by the neglect of the parents. The beneficial effect of the remedy was therefore established in four-fifths of the total number of cases, in a few it was astonishingly marked, but in none was it at all uncertain. The attacks diminished in violence and also in frequency, particularly at night. The remedy was always well borne, vomiting was arrested, the appetite increased, the children became generally more cheerful and slept better. The course of the disease was decidedly shortened, although necessarily the nature of out-patient treatment does not admit of the reckoning of an average duration. Complications (broncho-pneumonia) were rare, but did appear a few times (particularly with rachitic patients) during the antipyrin treatment.—*Medical Press and Circular.*

On the Spontaneous Healing of Tuberculosis; its Frequency and the Mode of its Occurrence.—There is a tendency when considering the processes which follow tubercular infection to ascribe too much to the bacillus and too little to the predisposition of the individual; the bodies of children are exceedingly susceptible to tuberculosis, and when they are exposed to infection they are very liable to contract the disease, yet in adults there are the most diverse degrees of resistability. In some persons the invading bacilli are overcome by the living cells, in some the contest is doubtful, in others the tissues prove the weaker, while in a fourth class, more especially the subject of attention, after the disease has become established and has done much damage, there is so far a recovery that the infection is destroyed and removed, and nature repairs the damage as far as possible. In the process of repair, the inflammatory products (including the true tubercles), induced by the tubercular irritants, undergo caseous necrosis. The necrotic mass, in which are still contained living bacilli, may long remain unaltered, but usually either suppuration occurs around it, the caseous material softens and is discharged with the pus but not as a rule completely, the tuberculosis lingering on until the infective matter is entirely removed, when cicatrization occurs; or else, the necrosed material simply remains as a foreign substance and, receiving in course of time deposits of lime salts, changes to a putty-like matter, or later into a hard stony mass. It is quite common to meet with such hard masses, sometimes of considerable size, in the mesentery—evidences of the previous existence of a tuberculosis, probably in early life, but now extinct. The other method of healing (by suppuration and discharge), commonly occurs in tubercular glands in the neck. In the lungs both forms of recovery occur; we find old cavities with smooth, clean walls, and cicatrices containing chalky deposits. In tuberculosis of bones there is always more or less of abscess-formation, and when recovery follows it is by means of granulation and formation of bony cicatrices. The soft tissue of the kidney forming a favorable structure for the advance of tuberculosis, it is doubtful if healing of tuberculosis in these organs ever occurs. Recovery from tuberculosis of the testis occurs in either of the ways described. In the peritoneum, if recovery occur, the caseous material is absorbed or calcified and the adhersions remain. Recovery from tuberculosis of the brain and meninges must be very rare. Evidences of healed tuberculosis are frequently found. As the result of careful scrutiny of his *post mortem* records for ten months, the author concludes that about 23 per cent. of the persons who die of disease unconnected with tuberculosis have been at a former period of life affected with some form of internal tuberculosis. As to the forms of tuberculosis, twenty out of the twenty-four were cases of healed tuberculosis of the lungs, two were cases of healed tuberculosis of the peritoneum, one of the mesenteric glands, and one of the bronchial glands. There is a numerous class of cases in which the tubercular process becomes extinct in one place, but extends and becomes active elsewhere. An old, but perhaps healed tuberculosis of the lung, is frequently associated with a recent active tuberculosis without any intermediate stage. Generally the explanation is to be found in a tubercular laryngitis which following the old pulmonary lesion, has continued for years, and reinfected with its secretions the lungs. The practical deduction is not to regard the tubercular laryngitis as of trivial importance. —*Br. Med. Jour.*

ON THE LYING-IN DECUBITIS.—The dorsal position so constantly observed for several days after labour I hold to be a mistake, for the following reasons :—

First, the soft and enlarged uterus (more especially when compressed by a tight binder drawn by all the force available of either nurse or doctor) must gravitate backwards and so favor the retension of the secretions instead of getting rid of them.

Secondly, in cases where any breach of surface exists (and which must have taken place unobserved during the process of labor) the dorsal position, by retaining the discharges longer in contact with the most likely surfaces to be torn, viz., cervix uteri or perineum, may lead to septic absorption, and it is as well to bear this in mind before waiting for such symptoms to develop. And by changing the decubitus on the back (so often assumed by the patient herself, or advised by the nurse) to the lateral or preferably the semi-prone position, the secretions will be much more likely to leave the body more quickly, and thus not be liable to be absorbed by any torn surface, perineum, etc., which may chance to exist. It is often a matter for surprise to observe the quantity of fluid held by the vagina (after syringing, for instance, when lying down). And when such fluid is of an abnormal character how important it is for the attendant to favor its exit by every means in his power. Another disadvantage of the dorsal position is that a quantity of lochial discharge collects in utero, and is liable to find its way into the patulous openings of the Fallopian tubes. The semi-recumbent position on the hip I have found useful, or the sitting posture for a few moments when the first twenty-four hours have passed, and I have remarked when this is done the process of involution proceeds more rapidly, the peristaltic action of the bowels becomes sooner re-established, and the lochial discharge ceases at an earlier date. I consider that if every lying-in patient were to adopt the prone position *directly after the birth of the child*, the expulsion of the placenta would be hastened, and very probably its expression by hand seldom required. This would be in itself, in my opinion, a great advantage if we consider the squeezing and violent pressure backwards the uterus has to sustain during the process of "expression," frequently followed by the application of a tight binder. Is it any wonder then that retroversion of the uterus has been traced (in some cases at least) to the aforesaid practice, combined with the mischievous habit of enforcing the dorsal position in addition on the lying-in patient for weeks after delivery, with the plausible idea of assisting the process of involution and preserving the patient's figure, when it was far more likely to produce an opposite effect. By changing the position each day as I suggest more perfect drainage of the parturient canal will be effected, and the uterus return to its normal size and position more rapidly. I trust therefore, that a trial will be made of my suggestions by obstetricians if only for the reasons given.—*Med. Press.*

ZADIG'S METHOD.— An admirable example of the application to medicine of this method of tracking used to be told with great gusto by my late friend, Dr. Milner Fothergill, and I regret greatly that I cannot tell it with the same power and vividness that he did. In the town of Leeds there once lived a quack who had received no professional instruction whatever, but was known far and wide for his wonderful cures, and especially for his power of diagnosing the diseases of patients whom he had never seen, by simply examining their urine. A celebrated surgeon, Mr. X——, wishing to see his method of working, desired to be presented one day, and the quack readily acceded to his request, feeling much flattered that so great a man should patronize him. Shortly after Mr. X—— had taken his seat a woman came in with a bottle of urine, which she handed to the quack. He looked at her, then at the bottle, held it up between him and the light, shook it, and said:

"Your husband's?"

"Yes, sir."

"He is a good deal older than you?"

"Yes, sir."

"He is a tailor?"

"Yes, sir."

"He lives at Scarcroft?"

"Yes, sir."

"His bowels are obstinate?"

"Yes, sir."

"Here," he said, handing her a box of pills, "tell him to take one of these pills every night for a week, and a big drink of cold water every morning, and he will soon be all right."

No sooner had the woman gone out than Mr. X—— turned to the quack, curious to know how he had made out all this.

"Well, you see," said the quack, "she was a young woman, and looked well and strong, and I guessed the water was not hers. As I saw she had a wedding ring on her finger, I knew she was married, and I thought the chances were it was her husband's water. If he had been about the same age as she it was hardly likely that he was going to be ill either, so I guessed he was older. I knew he was a tailor, because the bottle was not stopped with a cork, but with a bit of paper rolled up and tied around with a thread in a way that no one but a tailor could have done it. Tailors get no exercise, and consequently they are all very apt to be constipated. I was quite sure that he would be no exception to the rule, and so I gave him opening pills."

"But how did you know she came from Scarcroft?"

"Oh, Mr. X——, have you lived so long in Leeds and you don't know the color of Scarcroft clay? It was the first thing I saw on her boots the moment she came in."

Now, of late years we have got so many new methods of investigation that we are sometimes apt to forget the old habits of close observation by which this quack made out so much, and proved himself, although without any diploma, a worthy descendant of the water doctor, whose picture by Gerard Dow occupies such a distinguished place in the gallery of the Louvre.—Lauder Brunton, in *The Lancet.*

SHOULD SYPHILITIC MEDICAL MEN CONTINUE IN PRACTICE.—Dr. Neisser, of Breslau, has considered the question of the expediency of the continuance in practice of physicians who have become syphilitic (*Centralblatt fur Chirurgie*). His communication takes the form of a reply to a direct inquiry addressed to him by a professional colleague who had advised both ways—to continue and to retire. Neisser's conclusions are that the necessity for a physician to retire from practice must be the exception to the rule; provided, that he shall have been under an efficient specific treatment. He offers his views chiefly on the following conditions: First, concerning the stage of the disease; second, the thoroughness of the specific treatment down to the time when practice is resumed; third, the state of the eruption, especially on the hands of the person whose line of practice is that of surgeon or accoucheur; fourth, whether any other affections of the skin, possibly not syphilitic in origin, may exist. The probabilities that a well-treated medical man will convey his disease to others are, of course, lessened in proportion to the remoteness of the date of his infection, and the lengthened interval since activity of efflorescence on skin or *mucosa* has been noticed; but even in recent cases, with popular eruptions and small ulcers, the writer holds that no serious danger need exist when the physician protects, as he should, the surfaces involved in the disease by means of rubber cots or impermeable dressings. In regard to non-syphilitic eruptions there is little probability of danger, where any ordinary degree of care is exercised; the eruptions themselves, Neisser thinks, cannot be a source of infection, with the almost sole exception that blood might be conveyed from some abraded eruption to the raw surfaces on the patient. And with regard to this danger even, he does not consider that it has been settled. As to active engagement in obstetrical and surgical practice by a syphilized person, Neisser claims that no hard-and-fast rule can be framed, and that very much must be left to the good judgment of the practitioner and to the merits of the case at the time the question of attendance shall be raised.—*The Jour. of Am. Med. Assoc.*

GELSEMIUM AS A REMEDY FOR COLD.—Dr. John Aulde writes in the *New York Medical Record:* For the benefit of those members of the profession who are on the outlook for improvements upon the methods of by-gone days, I venture to offer a single remedy for the treatment of a "bad cold," that is far superior to all the baker's dozen just enumerated. Gelsemium is not only useful in those cases which would recover without medication, but is also efficient when formidable symptoms are present, and judiciously employed may be the means of averting an attack of pneumonia, pleuro-pneumonia, pleurisy, or other serious disease beginning in the form of a bad cold. Gelsemium arrests profuse nasal secretions, quiets headache and neuralgia, subdues cough and pain, favors a re-establishment of the secretions, through its influence upon the skin, kidneys, and gastro-intestinal tract. It reduces temperature and pulserate, promotes sleep, and creates a feeling of comfort and well-being without in any way approaching narcosis or destroying the oxygen-carrying capacity of the blood-corpuscles. By the use of this single remedy, much discomfort to the patient is avoided, digestion remains undisturbed, nauseating draughts are banished, the necessity for purgatives precluded, and all dangers of subsequent relapse practically eliminated; while recovery is prompt, perfect and satisfactory in every particular. Ten drops of a reliable fluid extract (assayed) are dissolved in three ounces of water, and of this mixture the patient takes a teaspoonful every ten or fifteen minutes for an hour, then at less frequent intervals according to the effects produced. The plan is simple, the medicine harmless in the dosage recommended, and not at all unpalatable, and the claims for it can be verified almost any day of the week at this season of the year, by submitting the remedy to the crucial test of clinical experience.—*Med. Age.*

THE RESTORATION OF DEFECTS IN TENDONS.—Kümmel (*Weiner medizin. Prèsse*, No. 43, 1891) has reported the case of a coachman who, while managing a pair of balky horses, perceived a sense of pressure, followed by severe transitory pain involving the whole of the left arm. Shortly thereafter a swelling appeared in the region of the left wrist-joint, the functional activity of the hand, however, remaining unimpaired. Several hours later severe pain in the left arm appeared. The thumb hung limp, and could be neither adducted nor extended; it felt numb and cold. The injury was considered a luxation, and treated by means of applications of lead-water. At the end of three weeks there remained no doubt that the extensor pollicis longus had been ruptured. Upon opening the sheath of the tendon it was found that the central extremity had retracted to the middle of the forearm. The distal extremity lay rolled up on the metacarpal bone of the thumb. Attempt to approximate the two segments proving unsuccessful, the diastasis of almost four inches was supplied by moderately strong, twisted silk thread. The wound in the skin was closed, and the extremity was dressed in hyperextension. The first change of dressings was made at the end of two weeks, the position of hyperextension being from time to time gradually relaxed. At the end of six weeks the splint was permanently removed, and movement was carefully instituted. In the course of four weeks more the patient was able to use the thumb with considerable force. The case demonstrates the possibility of replacing defects of tendons by non-vital structure, with restoration of function. It is possible that the silk threads furnish a guide and support for the connective tissue that is to replace the defect.—*Med. and Surg. Rep.*

THE ETIOLOGY OF CHANCROID.—The author reports cases to illustrate that chancroid may begin where there is any solution of continuity of surface, provided it is infected by bacteria with or without sexual intercourse. He continues: In this clinical summary I have endeavored to present a general outline of the mode and peculiarities of development of chancroids appearing after sexual contact, and, as we say *de novo*, without sexual contact, or by accidental pus-contamination. The subject has occupied my mind for many years, and I believe that it is here presented in an accurate manner. I think that I have adduced evidence that proves beyond controversy that the assertions that a chancroid is always of necessity the result of chancroidal pus, and that if all the patients in the world suffering with chancroid would avoid contact with others until their malady got well, the disease would cease from off the face of the earth, are utterly false, and not at all in keeping with the present condition of our knowledge. To sum up: What we call chancroid is the product of many varieties of pus derived from non-syphilitic and syphilitic subjects. It is therefore a hybrid, heterogeneous lesion, in all cases a septic ulcer, and in many instances simply an active form of wound infection. This septic ulcer in some cases originates *de novo* from the contact of pyogenic microbes with a raw surface, herpetic or eczematous excoriation, a chafe, etc., sexual contact then having nothing to do with its development. As a general rule, this local infective process is more active in syphilitic than in non-syphilitic subjects. It follows, therefore, that so long as pyogenic microbes and tissue-predisposition exist, chancroids will be found upon the mucous membranes and integument of the human race.—*Medical News.*

TREPHINING FOR JACKSONIAN EPILEPSY.—Mills and Keen (*Amer. Journ. of the Med. Sci.*, December, 1891) put on record a case in which trephining was practised on a woman, aged 27, for the relief of severe Jacksonian epilepsy of non-traumatic origin. On the removal of a disc of thick and hard bone over the fissure of Rolando, at a distance of 1.75 inch from the median line, a small growth was exposed which projected about a quarter of an inch above the surface of the dura. After removal of a triangular piece of dura, including this growth, a portion of the cerebral cortex, three-quarters of an inch in diameter, and comprising all the cortical grey matter under the tumor, was excised. This was done in order to make a subcortical exploration for any further lesion, and also to prevent the recurrence of the spasms by removing what seemed to be their primary seat. The patient recovered from the effects of the operation, and on the thirty-third day had regained all movements of both limbs, and was able to walk. The results of the surgical treatment were, however, with regard to the epilepsy, unsatisfactory. For a period of nearly eight weeks after the operation the patient had on an average four or five epileptic attacks daily. When seen about six months later she was still suffering daily from spasmodic seizures, which, however, never attained the severity or frequency of those observed for a short time prior to the operation. The removed growth, which had apparently originated in the pia and perforated the dura, presented under the microscope the characters of sarcoma. It is suggested by Dr. Mills that the persistence of the epileptic attacks in this case might be due to the presence of sarcomaous growths or infiltrations elsewhere in the brain.—*Brit. Med. Jour.*

INTERSTITIAL INJECTIONS OF CREOSOTE IN CERVICAL METRITIS.—An ordinary Pravaz syringe is used with a sufficiently long needle to reach the neck of the uterus. The membrane is cleansed of its secretions by means of carbolized cotton. Then the injections are made (at two or three different points to the depth of from two to five millimetres) of a quarter of a syringeful for each spot of a mixture containing equal parts of pure creosote, alcohol, and glycerine. Only one of the everted cervical lips is injected at one treatment. Generally the patient soon experiences the taste of the creosote, with a subjective warmth and gentle perspiration; but these effects are never marked. At the site of the injection superficial eschars are formed. Rarely do the latter penetrate deeply. The sloughs are at first gray in color, then black, and they promptly separate, leaving a discharging mucous surface. Following the injection an application is made of a powder composed of tannin, iodoform, and salol.

Under the influence of the creosote there is a rapid disappearance of all functional disturbance. The pains gradually disappear. The discharge gradually lessens and finally ceases. After the cauterization scarifications are made to evacuate the contents of the free glands or cysts and to lessen the congestion of the parts. For this purpose a bistoury is used followed by an antiseptic douche and the application of antiseptic cotton tampons. The aseptic condition of the parts is effected by insufflating every two days the foregoing powder and then applying tampons. These are removed when a renewal of the powder is necessary. In this way a cicatrization is obtained much more rapidly than with injections, and absolute repose of the organs is ensured. The treatment is suspended only during the menstrual epoch.—*Gazette Médicale de Liége.*

HARE (H. A.) ON THE TREATMENT OF ANÆMIA BY COPPER AND ARSENIC.—After the digestive tube has been treated by the remedies ordinarily used to regulate its action, the arsenite of copper has an opportunity to perform a double duty. Acting as does arsenic as a stimulant to mucous membranes all over the body, in addition to its stimulant influence on nutrition, it tends to prevent disorders of the digestive mucous membrane, and so renders perfect secretion and absorption possible, preventing the auto-intoxication of the patient from the fermentation and decomposition changes in the contents of the stomach and bowel. Happily joined to this, the copper adds tone to the system, and promotes assimilation and the production of muscular tissue.

Acting in the belief that arsenite of copper would form a useful combination in the treatment of anæmia and debility, the writer has tried it in a number of cases with very encouraging results. Under these circumstances the digestion improves, the color becomes more like the normal, and, either by a direct effect on nutrition or on digestion or on both, the patients progressed rapidly towards health, provided, of course, that the anæmia was functional and not organic in origin. In the dose of $\frac{1}{50}$ or $\frac{1}{25}$ of a grain, arsenite of copper will, I think, often prove of service, if given three times a day after meals, and from its combination may prove to be superior to Fowler's solution not only in anæmia but also in chorea and similar nervous ailments.—*Therap. Gazette.*

THE RESULTS OF TREATMENT OF SIMPLE FRACTURE OF THE SHAFT OF THE FEMUR.—At a meeting of the American Surgical Association held in May, a committee consisting of several representative surgeons of the United States was formed with instructions to report on what, in their opinion, might be considered satisfactory results of ordinary treatment of fracture of the shaft of the femur. The report, which is published in the Philadelphia *Medical News* of September 26th, deals with the points of bony union, of the relation of the long axes of the fragments, of correspondence of the anterior surfaces of the fragments, of the length of the injured limb, and of lameness, and concludes with the following summary: A satisfactory result has been obtained in the treatment of fracture of the shaft of the femur when (1) firm bony union exists; (2) the long axis of the lower fragment is either directly continuous with that of the upper fragment, or the axes are on nearly parallel lines, thus preventing angular deformity; (3) the anterior surface of the lower fragment maintains nearly its normal relation to the plane of the upper fragment, thus preventing undue deviation of the foot from its normal position; (4) the length of the limb is either exactly equal to that of its fellow, or the degree of shortening falls within the limits found to exist in 90 per cent. of healthy limbs—namely, from one-eight of an inch to one inch; (5) lameness, if present, is not due to more than one inch of shortening; (6) the conditions attending the treatment prevent other results than those obtained.—*Brit. Med. Jour.*

EARLY HIGH AMPUTATION IN SENILE GANGRENE.—Dr. C. A. Powers, of New York, reported a case in which he had amputated through the middle of the femur, at the New York Cancer Hospital, for arterio-sclerotic gangrene in a man of sixty-seven years, whose gangrene had extended to the foot and lower leg. His patient died on the fourth day from hypostatic pneumenia, yet a post-mortem examination of the stump revealed firm primary union, no pus, and no areas of malnutrition. The paper was in support of Mr. Jonathan Hutchinson's recommendation that when the gangrene had extended from the toes to the sole or dorsum of the foot immediate recourse (barring contra-indications) should be had to amputation above the knee, inasmuch as it was more than probable that a lower amputation would be followed by gangrene of the flaps and increased danger to life. Dr. Powers cited some twenty-five cases of Kuster's, recently reported by Heidenhain, an analysis of which gave strong confirmation of the proposition that in order to obtain sound tissues one must amputate through the thigh. In the discussion, Dr. Willy Meyer, of New York, and Dr. Herman Mynter, of Buffalo, cited personal cases showing the value of the procedure.

Shall Clergymen Pay the Physician for Services?—This question has come up for discussion, based upon the bill of a Brooklyn physician made against the estate of a Catholic priest for services rendered. The heirs protested on the ground that it was usual for physicians to make no charges under the circumstances. There is no reason why this should be so, however, as was very properly stated by a priest in voluntarily answering the question in a letter to one of the newspapers. We entirely agree with the latter assertion and that, save in a very few exceptional cases, charges should be made. The physician pays the priest for the marriage ceremony, for christening, and his heirs are expected to be ready with an honorarium when mass is said at the funeral of the doctor, when his many deeds of charity are over. Nor does the physician enjoy a free pew in the church of his choice on the score of helping the deserving poor of the congregation. As a mere matter of advertisement for practice it seldom if ever pays, as the clergyman in many cases chooses a physician for himself, but for policy sake does not care to recommend one doctor more than another for members of his flock. But more than all, the services to the priest or minister are valued in proportion to the amount actually paid for them.—*Medical Record.*

The Treatment of Dysentery.—At a meeting of the Medical Society of London, held October 19, 1891 (*Medical Press*), Professor Bahadurji, of Bombay, read a paper on the treatment of dysentery, which he said was not a contagious or infectious disease, nor in any sense specific. He claimed to have reduced the mortality to almost nothing. Instead of endeavoring to keep up the strength of the patients by meat juices and extracts, which he said acted only as irritants, he gave arrow-root milk. In the way of medication he gave bismuth, Dover's powder, and soda, with the object of neutralizing the acidity of the blood, of calming the abnormal action of the glands of the large intestines, and of rendering the canal sweet and free from decomposition. He pointed out that the action of the ipecac and the alkali was to render the thick, sticky mucus more liquid, and thus enable it to be got rid of.—*Med. Record.*

A Novel Use of a Benzoinol Solution of Menthol.—Dr. Elizabeth N. Bradley has sent us a brief note on the case of a patient, 64 years old, of a rheumatic diathesis, who had been suffering for several days from the pneumonic and cardiac complications of la grippe, when an attack of acute prolapsed hæmorrhoids ensued one night. The usual remedies having proved unavailing, either in alleviating the pain or in overcoming the spasm of the sphincter, it occurred to the doctor that spraying the hæmorrhoids with a benzoinol solution of menthol, which had proved very efficacious in controlling a paretic tendency of the laryngeal muscles in the same case, might so stimulate the muscular structure of the hæmorrhoidal veins as to accomplish a sufficient diminution in the volume of the piles to render them reducible. The spraying of the hæmorrhoids was followed almost immediately by a cessation of pain, and by such a decrease in the volume of the tumors that their spontaneous reduction speedily ensued.—*N. Y. Medical Journal.*

The Action of Strychnine Upon the Cerebrum.—It has heretofore almost been regarded as an accepted fact that strychnine has no influence upon the cerebrum, but only upon the gray substance of the spinal cord and medulla oblongata. According to late investigations by Biernacki, this is not correct. After the subcutaneous injection of small doses of nitrate of strychnine on rabbits, the electric excitability of the cerebrum was found to be distinctly lowered. The effect was the same when strychnine was brought directly into contact with the cerebrum. The results of these experiments seem to throw some light upon the curative action of strychnine in cortical epilepsy and other irritative conditions of the cortex cerebri; and they also serve to explain the beneficial effects of this remedy in sleeplessness as recommended by Lauder Brunton. The influence of strychnine upon the nervous system has also been investigated by Paulsen, who finds that large doses cause a general paralysis of the central nervous system.—*Journal of Nervous and Mental Disease.*

Anent the recent birth of a Chinese baby of a white mother in Philadelphia, as a result of maternal impressions induced by a Sunday school class of Chinese, which the lady was teaching, a good joke is related:

The wife of a physician in this city read the account of the Chinese impression to her husband and asked him his opinion of it. "Humph!" he growled, "possible." "And," his wife resumed, "I read a short time ago, of a lady who had been chased by a negro and was afterward delivered of a negro child. Do you think such a thing could happen?" "Yes," replied our cynical doctor, "if the nigger caught her."

Better Wait Awhile.—Patient: "What would you think of a warmer climate for me, doctor?" "Good Lord, man, that's just what I'm trying to save you from!"

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THE MEDICAL COUNCIL OF ONTARIO.

A bill is at present before the Ontario Legislature which must be a matter of deep interest to the entire medical profession of Ontario. In this bill radical changes in the *personnel* and character of the Medical Council of Ontario are proposed.

Clause 1 of this bill proposes that section 27 of the Ontario Medical Act be repealed. Section 27 of the Ontario Medical Act reads as follows: "Each member of the College shall pay to the Registrar, or any person deputed by the Registrar to receive it, such annual fee as may be determined by by-law of the Council, not less than one nor more than two dollars, towards the general expenises of the College, which last mentioned fee shall be payable on the first day of January in the year in which the same is imposed, and such fee shall be deemed to be a debt due by the member to the College, and be recoverable with costs of suit in the name of the College of Physicians and Surgeons of Ontario in the Division Court where the member resides." 37 V., c. 30, s. 22.

Clause 3 of the same bill proposes that clauses numbered 2 and 3 of the sub-section, commencing, "Firstly," in section 6 of the Ontario Medical Act, be repealed, which means, in short, that the representation of the various medical colleges and universities in the Medical Council be done away with.

These are the important clauses of the proposed bill, and it must be plain to every practitioner, that the result of such legislation would be to speedily effect the destruction of the Ontario Medical Council. For our own part we do not think the sum of two dollars per annum too large a fee to be paid for the protection which the Ontario Medical Council furnishes to the medical profession of the Province; the Council's difficulty has been the collection of the fee, it being more trouble to collect it than it is worth; and this has been the cause of the system of yearly license which the Medical Council has adopted, and which system has given offence to the medical men of some divisions.

Regarding the removal from the Medical Council of those representing the various universities and medical schools of the Province, the result of such legislation would be most prejudicial to the Council; not only would it antagonize the combined influences of all such universities and schools, but would do much to draw public confidence from the Council.

The reason for such proposed amendments to the Ontario Medical Act being brought forward, is certainly not wholly outside of the Medical Council itself, when we find in the official announcement of the College of Physicians and Surgeons of Ontario such a statement made by a past President of the College, as the following: "I feel that we have too many medical schools, and I feel that all the opposition that we have, to attempts to advance the interests of the medical profession of this country, comes from the schools, and if they desire it and continue in this course the result will be that the profession will as one man rise up and demand that the school-men be excluded from the Council because of their opposition to every advance in medical and preliminary education."

We are glad to say on credible information, that this unjust statement is not supported by any prevalent feeling in the Council. The educational and electoral representatives are disposed to work together in harmony; nevertheless the apppearance in the annual announcement, of a charge so unfair in its nature, would necessarily have its weight with a portion of the outside profession, who are not thoroughly conversant with the spirit of the Council, and accordingly the battle cry "Exclude the school-men," has been apparently adopted by the opponents from outside who are the promoters of the present bill.

As a natural consequence appears the bill of amendments introduced by Dr. Meacham, in part for the very purpose of giving legislative effect to the unfortunate words uttered at first in the heat of debate.

We hope in the interests of truth and right, that the gentleman referred to, will take an early opportunity to soften the asperity of his sentences.

We ask where would the Ontario Medical Council be if it received no fees, and had not the endorsation of the medical colleges? The Medical Council must remember it has a duty to perform to both the medical profession and the public; and it cannot afford to assume an autocratic spirit even so far as one individual member is concerned, without endangering itself, and materially injuring the interests of the profession.

We have, in the past, given the Ontario Medical Council our undivided support, and we are sincerely desirious of doing so in the future, but we must urge upon the members of the medical profession care in the selection of their representatives to that body. The legislation of matters medical is practically in the hands of the medical men themselves, and they would do well to use every effort to keep them there, and not allow their interests to pass out of their own hands by any such legislation as is at present proposed.

MEDICAL EDUCATION IN ONTARIO.

We desire to call the attention of our readers to the supplement which is published with this issue. It is Dr. Geikie's reply to a letter by Sir Daniel Wilson to the Hon. the Minister of Education. We publish it, with same addenda, not because the question at issue has not been pretty well aired, both in the public press and by other methods, but as a means of letting our readers have a view of the whole ground at a glance, and that they may judge of the fairness, or rather unfairness, of the fierce attack lately made upon Dean Geikie in the editorial columns of our esteemed contemporary, the *Canadian Practitioner.*

This editorial is quite a marvel of bitternesss, rancor, and, we cannot help thinking, of *spleen*, for if one read between the lines, indications are not wanting that the writer feels that his party is, to say the least, not getting the best of it in this discussion.

It is indeed a sign of weakness when a journal, representing the interests of the medical faculty of Toronto University, has to *descend*, and we say it deliberately, to mere personalities.

The *Practitioner* has no doubt the warmest thanks of the Faculty of Trinity Medical College, for calling it "*respectable*," but why the Dean's position is "anomalous," we fail to see. Certainly he has done more to create and keep up the interest in the said college than all the other members of the faculty together, and there is but little doubt in the minds of those who *know*, that but for Dr. Geikie's untiring zeal in looking after the welfare of Trinity she would not to-day be in as strong and commanding a position as she is.

The only thing in the whole article that is worthy of notice, apart from the personal abuse of Dr. Geikie, is that the editor seeks to fasten on that gentleman the charge of having spoken of the University authorities as being guilty of "dishonest misappropriation of public moneys."

This charge is contained, not in Dr. Geikie's, but in Sir Daniels' letter, and is entirely without foundation, and is fully answered in the Dean's reply. He never used the words "fraudulent" or on "false pretences," either in speaking or writing, and in his letter he says he never even thought of such actions on the part of the "authorities of the University." So that all the borrowed thunder, not lightning, which the editor used, coupled with the long list of names, some justly honored, and others of men of high standing, is as naught; for the Dean is guiltless of imputing to any of these gentlemen either "fraud," or "false pretence." Where does the "reckless" come in? with Dr. Geikie or the man who deliberately prints and circulates such matter? The *English* is no doubt "chaste and classic," but plain, blunt, old Anglo-Saxon *facts* will win the day against any amount of classicism in the world.

But the grand acme of editoral gall is reached when the editor sympathizes with the Dean's colleagues who "have allowed themselves to be dragged *through the mire* by their energetic but erratic chief." (The italics are ours.) We are not *all* the colleagues, but we think we may say that they, the colleagues, are as a unit with the Dean in this matter, and we know that if they are not, they ought to be. So that sympathetic regrets are not at all in order from our esteemed contemporary, who goes on to speak of the "all-powerful" influence of the Chancellor, Vice-Chancellor and President. If they would use a little of the "power" to explain some of Dr. Geikie's damaging statements they would do more in the interests of the University of Toronto than will any amount of buncombe in the columns of a partizan medical journal.

MYOPIA IN SCHOOL-CHILDREN.

The proper hygiene of the eye is of particular interest to everyone, especially to parents and guardians. However imperfect adults may be physically, there are few of them that will not rejoice in the perfections of childhood, and whatever will secure for it immunity from future dangers.

Some highly interesting facts regarding the modern eye and its care, were discussed at a recent meeting of the French Ophthalmological Society. Abstracts of the discussion are to be found in the *Mercredi Médical*, Dec. 9th, 1891. According to the statistics of the well-known Dr. Motais, who has examined upwards of 5000 school-children of different grades, and the families of three hundred young myopic patients, myopia is not a disease from the point of view of onset and origin.

It is a normal development, an adaptation of the eye to new functions—in other words, to near vision. It is the result of city life and civilization. The human eye is hyperopic to the extent of about ½ to 1 deopter. Emmetropia, which is given as the rule, is the first result of the eye adapting itself to the modern requirements. The emmetropic eye is a candidate for myopia, which usually appears between the ages of 11 and 13 years, and is usually gradually progressive.

Myopia is hereditary in 65% of all cases. In 80 out of every 100 myopic persons, the condition of the eye is transmitted from the father to the daughter, and from the mother to the son, or from grandparents to grandchildren. Hereditary myopia is more sharply defined than the acquired form. It reaches a higher degree more rapidly, and complications more frequently accompany it. Acquired myopia has a tendency to become hereditary. As education is becoming more and more general, even among girls, Dr. Motais fears for the future, evidently forgetting the tendency of human nature to revert to an original or primitive types. As prophylactic measures, good light, and hours that are not too long, are important, together with the overcoming of the tendency to spasm, that often precedes the development of myopia. As near-sightedness progresses there is sometimes depression of the posterior pole of the eye, and sometimes destruction of the anterior segment.

Extraction of the transparent crystalline lens is justly considered dangerous, though surgical interference is advocated by Dr. Palerowski when there is exaggerated curve of the cornea. In twelve instances he has removed a semi-elliptical portion of the cornea near the centre, following the method adopted by him for staphyloma. In every case the operation has been followed without accident, by diminution of the myopia from 2 to 5 deopters.

The racial influence on near-sight shows some points of interest. The children of German emigrants present a slighter degree of myopia than those of other races in America, far less than the children of the same age born in Germany. Where the weather is constantly foggy, myopia is more prevalent than where the atmosphere is clear and bright, being very rare in the Western States.

According to Prof. Nimier, the hygiene of the eye is indispensable, but too great results need not be anticipated from preventive measures.

The etiology of myopia is complex. Near work, heredity, and growth, are all factors to be taken into consideration. Yet this condition is sometimes due to congenital malformation of the eye. At the hospital of Val-de-grâce there is a record of 49 cases of amso-metropic myopia, sufficient to establish the existence of this abnormality.

This question of the grave increase of myopia is one to which the profession should give their earnest attention, in order that cases may be attended to at their inception, and the tendency to progressive changes, such as posterior staphyloma, prevented, as far as possible, by the various methods at the disposal of science.

College of Physicians and Surgeons.—Intending candidates for the examination in the above College, are referred to advertisement in another column, regarding the Spring Examinations in April, 1892.

DR. HUGH ROBERTSON.

It is our sad duty to note the death of Dr. Hugh Robertson, of this city. The cause of death was diphtheria, contracted by attendance on his daughter. Dr. Robertson was well known as Professor of Anatomy at Trinity Medical College, to which institution he also acted as treasurer and curator of the museum. Trinity Medical College loses a most useful member of its corporation by his death, he having been connected with that body for about 20 years. The Dr. was 50 years of age at the time of his death. We wish to extend our warmest sympathy to Mrs. Robertson and her family in their bereavement, and trust that time, the healer of all wounds, may deal gently with them, left without the wise guidance of a husband and father.

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GOLDEN RULES OF SURGICAL PRACTICE.—*Continued.*—(*Times & Reg*):—Never try fluctuation *across* a limb, always *along* it.

Never forget that:

1. Abscesses near a large joint often communicate with the joint.
2. Abscesses near a large artery sometimes communicate with the artery.
3. Abdominal wall abscesses sometimes communicate with the gut.

Never forget that *early* openings are imperative in abscesses situated:

1. In the neighborhood of joints.
2. In the abdominal wall.
3. In the neck, under the deep fascia.
4. In the palm of the hand.
5. Beneath periosteum.
6. About the rectum, prostate, and urethra.

Remember the frequency with which hæmatoma and traumatic aneurism have been mistaken for abscess, and incised; and remember, also, that in extravasation below the gluteal fascia there is rarely any sign of bruise or injury to the skin. Never incise such without auscultation or exploratory puncture.

Never plunge; never squeeze in opening abscesses. Do not forget that your incision should radiate:

1. In abscesses pointing near the nipple.
2. In abscesses near the anus.
3. In scarifying the chemosis of the cornea.

And that your incision should be longitudinal:

1. In the hand.
2. In the urethra.
3. In the scalp.

Do not forget that incisions in the neck and face should run parallel with the wrinkles and folds.

Do not be afraid of hurting the lacteal tubes in mammary abscess. More harm is done to the gland by the enlargement of the walls of the abscess than by a free incision.

Never make a palmar incision, except in the middle of the lower third and in the axial line of the fingers, or at the sides of the palm.

Do not open an abscess anywhere near a large artery without first using a stethoscope, and then only by Hilton's method (*i. e.*, director and dressing forceps).

Never, under any circumstances, use for exploratory puncture that surgical abomination, a grooved needle, for it will allow contamination of all the tissues through which it brings the fluids (Thornton).

In opening a deep abscess in the lumbar region without the projection of an abscess, do not forget to cut down opposite a transverse process, and not between them, for fear of wounding a lumbar artery.

Aneurism.—Never attempt to cure an aneurism by the formation of a thrombus if the patient has any septic condition (such as an abscess, sore, suppurating otitis), for such may induce yellow softening of the clot.

Artery-bleeidng—Always tie both ends of a divided artery in a wound.

Bladder and Urethra.—Never neglect to pass your hand over the patient's belly in typhoid, or any fever, injury, or fracture of the spine, compression, etc.; for the bladder may be atonic and injuriously distended without distress.

Never use force in passing a catheter in fractured spine, because of the *insensitiveness* of the urethra.

Never pass a urethral instrument upon a man without having first passed one on yourself.

Never pass an instrument if your patient is suffering from an acute inflammation of the testicle unless you are relieving retention, or unless testitis occurs in a patient habitually using a catheter.

Do not permit yourself to talk glibly of "impassable" stricture. Such cases are rare. Patience and a little sweet-oil often carry an instrument through.

Never do an internal urethrotomy until you ascertain that your patient is free from undue erections, because of hæmorrhage. If the organ is irritable, exhibit bromide of potassium for a few days prior to the operation.

Never put on cantharides blister in nephritis because of absorption (use liq. ammon. fort.).

Do not forget that irritability of the bladder is often due to *renal irritation* and reflex actions.

Never inject more than four ounces at a time into the bladder, and that only with care.

Dr. C. S. Robinson, Richford, Tiaga Co., N.Y., says: I have tried Papine (Battle & Co.) and I find it possesses the medicinal virtues of opium, unalloyed with the drawbacks following the use of other forms of the drug. I tested Papine in my own case, having used many forms of opium, during forty years, but only in acute attacks. It is not harmful like crude opium, morphine and other preparations, in delicate or irritable stomachs; on the contrary it is acceptable as cordial. Also, the head is not made ill as it is by the other forms of opium that have come under my observation during most half a century. Papine is more prompt than morphine, except when the latter is used hypodermically. My wife has acute rheumatic attacks, and so-called "sick-headaches," and long ago decided she was unable to bear morphine or opium treatment. On hearing me extol Papine, she tried it unbeknown to me, and afterwards reported, saying: "I believe it is indeed a good remedy, I can take it, for it does not make me sicker when I am sick."

Patent Medicines and the Lay "Press."—At the Annual Meeting of the Canadian Press Association, held in Ottawa, March 3rd and 4th, Dr. Playter brought before the meeting the subject of patent medicines and cure-all advertisements. Why, the doctor said, should the general press insert such advertisements any more than the medical press? Patent medicines did an incalculable amount of harm,—promoted intemperance and disease, misleading the people until it was too late, in many instances, disease having progressed too far, for medical skill to apply successful remedies. The most excruciating of all pains, especially to most readers of papers, was "Paine's Celery Compound." The press was a wonderful educator, a great power for good, or for ill. The time would surely come when this practice of the press would be abandoned. Dr. Playter asked for a committee to be appointed by the President to report on the subject at the next meeting of the Association. The President referred the question to the Executive Committee, and said the Association would be glad to have a paper on the subject from the Doctor at the next meeting. Dr. Playter intends to give a paper on it and to press for more discrimination in regard to the advertising of such nostrums.

Jaborandi for Urticaria.—Dr. Heaton in a letter to the *Cincinnati Lancet-Clinic*, says: I have noticed in some of my medical journals of recent date various remedies recommended for the cure of urticaria. I have not, for the past years, used any other remedy than jarborandi for this affection. I gave one-half teaspoonful of the fluid extract every half hour until four doses are taken, or until free perspiration or salivation is induced. I usually direct it to be given in the evening, and instruct the patient to avoid exposure to cold while taking it and for thirty-six hours afterward. If necessary, repeat in same way in twenty-four hours. I have in no case had to repeat doses more than once to effect a cure. I have also found jaborandi given in the same way a most excellent remedy in gonorrhœal rheumatism, when given in the beginning.

Mercury in Glanders.—Koudortky, in the *Vratch*, reports a case he has cured by means of this drug. The diagnosis was confirmed by the presence of the microbe and inoculation. He opened the abscesses freely, and washed with from 1 in 500 solution of sublimate; the ulcers were irrigated with the same lotion and then brushed over with nitric acid, while mercurial inunction was diligently carried out daily. The patient was a labourer, aged twenty-nine years, admitted to hospital on the fifteenth day of the disease, and was dismissed after seventy-two days quite well, and temperature normal. The toxic symptoms of the drug appeared on the sixty-second day in the form of stomatitis.

THE TREATMENT OF ECLAMPSIA.—In the *Brit. Med. Jour.* Robert Barnes states his belief as to the causation of eclampsia, and outlines the principles of treatment as follows: he would interrupt pregnancy whenever marked albuminuria, with or without convulsions, is present. He values venesection highly; he is also careful to avoid contact with the patient before albuminuria is present; salines, calomel, podophyllin, are eminently serviceable. In the eclamptic stage chloroform is best, and occasional inhalation of nitrite of amyl.

TREATMENT OF CONDYLOMATA.— Dr. G. Finco, *Gaz. Med. Lombarda* recommends the following in the treatment of condylomata:

℞—Collodion .... 2.00 grams.
Mercur. corrosiv .... 0.02 grams.

The collodion should be poured into a small cup, the corrosive sublimate added, and the whole well shaken, as the sublimate does not dissolve in collodion. The largest condylomata may be touched with a small brush dipped into the mixture, following this with the local application of cold water. On the following days the others may be treated until all are removed.

WHITE OF AN EGG IN FISSURES OF THE NIPPLE IN NURSING WOMEN.—Dr. Allen (*La Semaine Médicale*), regards sponging the nipple with the white of an egg as the best treatment of fissures of the nipple appearing during the nursing period. The nipple should be sponged several times a day, and immediately after each nursing. The fissure should first be carefully wiped dry. Before the child takes the nipple the film of albumen should be first moistened with water. According to the writer, if this treatment be instituted at the beginning, the pain ceases almost instantly, and cicatrization takes place in the course of a few hours.

INTESTINAL ANTISEPSIS.—Dr. Dujardin Beaumetz recommends in *Les Nouveaux Remèdes* (*Theuap. Gaz.*) the following formula as a satisfactory intestinal antiseptic:

Salol,
Salicylate of bismuth,
Bicarbonate of sodium, āā 150 grains.

To be divided into thirty powders in capsules. One capsule to be take before breakfast and before dinner.

GARGLE FOR ACUTE TONSILLITIS.—The *Med. News* gives the following:

℞—Ammoniated tincture of guaiac, . . .
Compound tinc. of cinchona, āā dr. vi.
Chlorate of potassium. . . . dr. ii.
Honey, ... dr. vi.
Powdered gum arabic, ... q.s.
Distilled water, q. s. ad, . . . oz. iv.

From one-half to one teaspoonful of this should be used as a gargle in a little water every two hours.

ENDORSING DEAN GEIKIE:—At a Faculty meeting of Trinity Medical College, held on Saturday, March 26th, a resolution was unanimously carried, endorsing the late action of Dean Geikie re medical education.

PROGNOSING THE SEX OF A CHILD.—Dr. Ross, of Belfast, says (*Med. Rec.*), that he can foretell the sex of the child from the place where the mother feels the fœtal movements most distinctly. If she feels them chiefly on the right side the child will be a girl; if on the left side, a boy.

INGLUVIN.—W. R. Warner & Co. desire to send to any physician a sample of this remedy whereever they have a patient resisting all other treatment for sickness in gestation, marasmus, cholera infantum, for which it has been found to be almost a specific.

A NEW VENTILATING APPLIANCE.

BY A. M. ROSEBRUGH, M.D.,

Late Surgeon to the Toronto Eye and Ear Infirmary.

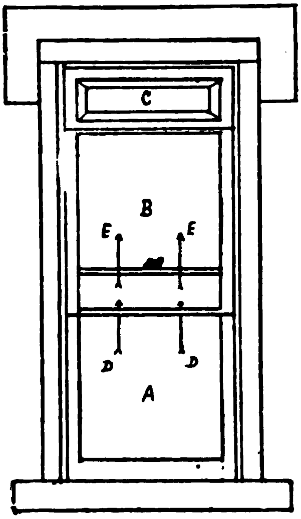
No one, I presume, will challenge the correctness of the following propositions, viz.:—

1. Only a small percentage of private houses are well ventilated.
2. Foul air causes phthisis, and renders healthy persons more liable to succumb to other diseases.
3. The mortality from phthisis, which now amounts to over 10 per cent. of the total mortality, would be very materially reduced, and the average duration of life would be very considerably increased were private houses, factories, etc., well ventilated.
4. Any means to this end is deserving of every encouragement on the part of every lover of his fellow-man.

As a contribution towards the accomplishment of this desired end, I have devised a ventilating appliance, simple, cheap, and, for ordinary house ventilation, quite efficient.

The object is two-fold, firstly, to afford diffusion of fresh air without perceptible draughts, and, secondly, to make the ventilating appliances in a form that will add to, rather than detract from the appearance of the windows and the building, and, thus, to make them self-recommendatory.

The ventilating appliance consists of a short supplemental sash, preferably ornamental, placed at the upper part of, and outside of the window, and close against the top part of the upper sash. This supplemental sash placed in this position affords simple means for changing a direct draught into an indirect draught when the top sash is lowered for ventilating purposes. The extra sash forms a block to the passage of a direct draught over the top of the upper window-sash, while a syphon-like space is afforded for the passage of an indirect draught by the overlapping of the upper and lower sashes. It is not new to ventilate buildings by utilizing the space caused by the overlapping of two window sashes, but heretofore this was done by the cumbrous method of placing a piece of planking below the lower sash. The cumbersomeness of this method has prevented its general adoption.



By placing the ventilating appliances at the top instead of at the bottom of the windows; by making them a fixture requiring no attention, and by substituting ornamental sashes for unsightly loose pieces of planking, the new ventilating appliances become self-recommendatory. They render window ventilation simple and easy, and I see no reason why they should not make it popular as well.

By admitting the fresh air between the overlapping sashes three important points are gained, viz.: Firstly, by treating several or all the windows in this manner the number of inlets and outlets prevent the concentration of the draught at any one point in the room, the fresh air is diffused and perceptible draughts are avoided. Secondly, the inlets are at the right height to prevent unpleasant draughts on the person. Thirdly, by admitting the fresh air through the syphon-like space between the overlapping sashes the fresh air is directed upward towards the ceiling. This can be very easily verified by a simple experiment, as, for instance, by using lycopodium seeds or the phosphorous acid given off at the first striking of a match before heat is evolved from the burning of the sulphur, as also by using the air meter.

Where windows on opposite sides of a room or building are equipped with these ventilating appliances both an inlet for fresh air and an outlet for foul air is afforded—"cross ventilation"—the direction of the current varying with the direction of the wind; and this method of admitting fresh air may be combined with any of the usual systems of removing foul air, such as by the use of fans, by cowls, or by artificially heated flues.

This system of ventilation, it seems to me, is particularly well adapted to bedrooms and sick chambers where it is desirable to have a constant supply of fresh air with freedom from unpleasant or dangerous draughts. It may also be made to supplement any other system of ventilation.

I have suggested to some parties the propriety of taking up the manufacture and putting in of these ventilating appliances as a business. Would it be too much to bespeak the co-operation of the profession in the enterprise? It is only by such co-operation that the venture can be made a success.

It is true that many families can not afford to decorate their houses with ornamental ventilating sashes. In such cases narrow opaque transom bars, painted to harmonize with the window frame may be substituted at a comparatively small cost.

Books and Pamphlets.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By William Osler, M.D., F.R.C.P., London; Professor of Medicine in Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital, Baltimore, etc., etc. New York: D. Appleton & Co. Toronto Agency, 170 Yonge St., Toronto.

The medical profession of Canada especially, have been for some time awaiting the advent of this work of Dr. Osler, not only on account of the warm personal friendship which exists between the profession of Canada and the author, but particularly on account of his known ability and thoroughness in the handling of every subject to which he applies himself, and in the careful study of the work to hand, the most critical cannot fail to be in the fullest sense satisfied. It would be impossible for us, in the short space allowed for a note of the work, to do it even scant justice, but we venture to mention some of the chapters which have especially commended themselves. The author begins in Section I. with "Specific Infectious Diseases," and first deals with the common yet complex malady, Typhoid Fever. We consider his handling of the etiology—modes of conveyance and morbid anatomy of this disease the most concise and clear of any treatise extant. In many works these particular portions of the subject are left after discussion, so unsettled and unsatisfactory that the reader can scarcely be said to have received any decided benefit from the perusal, but is, if anything, left more befogged. Anyone who will carefully read the pages referred to in Dr. Osler's work will receive a very clear and positive impression of the most recent and accepted views regarding the etiology of this disease, and in the pages devoted to the morbid anatomy will have received such information as will give him a very intelligent idea of the disease which is afterwards so fully dealt with in the matter of diagnosis and treatment. If we may venture to specially mention any particulars in Section I. we would commend chapters 1 on Typhoid Fever, 21 on Malarial Fever, and particularly chapter 26 on Tuberculosis. The latter is undoubtedly one of the most instructive and valuable portions of the whole treatise; seventy-two pages are devoted to the subject, and therein are set forth in a remarkably clear and masterly manner, the features of this interesting affection. Beginning with the zoological distribution (which though a short paragraph is an exceedingly interesting one) he passes to the discussion of the features and properties of the bacillus itself, taking up its morphology—modes of growth, products, distribution, etc. In paragraphs 5 and 6 under this head he has elucidated the subject with observations on 427 cases at the Johns Hopkins Hospital. The morbid anatomy, as well as the acute and chronic tuberculous processes are ably handled. Section III. of the work is devoted to the diseases of the digestive system, and of the chapters in this section, chapter 6 on Diseases of the Stomach, we think among the best. The subject of Gastritis is especially well handled under the head of Acute, Phlegmonous, Toxic, Diphtheritic, Mycotic, and Chronic Gastritis. In Section V., which treats of diseases of the circulatory system, we notice the influence which has been borne by the author from his long contact with medical students, who have painfully and studiously wrestled with the modifications undergone by the central circulatory organ in its multiple affections, and many medical students hereafter will bless Dr. Osler for his clear classification and lucid exposition of the etiology and mechanism of cardiac murmurs, whilst the most scientific and skilled "heart specialist" will find a grounding for close study and further observation in the author's chapters on Arrhythmia, Tachycardia and Brachycardia. Section VII. on "Diseases of the Nervous System," to which 220 pages of the work are devoted is perhaps the most classical part of the book; paragraph 2 of this section devoted to affections of the blood-vessels, is in our opinion perfect. In the chapter on "Affections of the Substance," disturbance of muscular action is made the basis for localization of lesion. Spinal localization is contended for, and the table prepared by Starr on "Localization of the Functions of the Segments of the Spinal Cord," is given. The subject of cerebral localization is, whilst somewhat condensed, very clearly put. The last section of the work is devoted to diseases due to animal parasites, and those of us who have known Dr. Osler in earlier days can recognize therein his still existing love for zoological and biological study, and in this short chapter of 27 pages is embodied a very practical history of the animal parasites. We may again assert that in this brief review we do not profess to do more than allude to those parts which have specially commended themselves to us in a superficial examination of the work. Anything from the pen of Professor Osler cannot fail to be interesting, but in his treatise on the "Principles and Practice of Medicine" Dr. Osler has produced a work which will, by the scientific and thorough handling of the whole subject, impress favorably every reading member of the medical profession, and add still more to his popularity. The lucidity and incisiveness with which the whole of medicine is dealt with, his comprehension of the difficulties of the student, and the requirements of the practitioner, has produced a practical treatise on the practice of medicine, which not only bears evidence of the true character and real mind of this able scientific teacher and investigator, but a work which will commend itself to all students of medicine.

[Supplement to CANADA LANCET.]

MEDICAL EDUCATION IN CANADA.

A Letter to the Hon. Oliver Mowat, LL.D., M.P.P., Attorney-General of Ontario, in reply to a Letter by Sir Daniel Wilson, LL.D., F.R.S.E., Etc., to the Hon. the Minister of Education.

To THE HON. OLIVER MOWAT, LL.D., M.P.P.,

Attorney-General of Ontario, etc., etc.

DEAR SIR,—A printed copy of a letter dated Feb. 22nd, 1892, by Sir Daniel Wilson, President of University College, addressed to the Hon. the Minister of Education, in reply to a communication sent by me to you, dated Nov. 3rd, 1891, on the subject of Medical Education in Ontario, has just been sent to me. The learned writer not only challenges, but entirely misconstrues and sometimes totally misrepresents, perhaps not altogether wilfully, some of the statements in the letter to which he replies. It is, therefore, necessary for me to trouble you once more, in order to prove the substantial correctness of the position taken by me throughout this entire discussion, and to correct the misconstructions and misrepresentations referred to, so that the Government may the sooner be able to reach such a solution of existing difficulties, as will be considered satisfactory and fair to all concerned.

I shall not follow the learned President's example in using strong language of denunciation or depreciation—nor shall I seek to slur the character of anyone, whether long since dead, or still living. The position taken by those for whom I speak, is far too strong to require the adoption of tactics so questionable.

I am greatly surprised that Sir Daniel Wilson, a gentleman occupying a position so distinguished, and who, if spared, as I trust he may be, will soon reach the four score-limit of human life, should have seen fit to adopt the very opposite course.

I.—The Abolition of the Former University Medical Faculty in 1853.

The abolition of the former Medical Faculty of the University in 1853 is the matter first alluded to by Sir Daniel. Up to 1853, this Faculty, maintained at the public expense, and the only Medical Faculty in the Province so maintained, was abolished by the old Parliament of Canada, only *two* of the members voting for its retention.

It would be very difficult to find a case of any legislature coming to a more unanimous decision on an educational question. It is easy, however, to explain this, all but unanimity of action, in view of the sound principle which was then very generally held, and which commends itself *now*, to most people of ordinary common sense, "That it is not the duty of the State to use public funds of any kind, in educating students for a special profession, such as medicine or law, any more than for any other calling by which people earn their living." The government organ at the time in Toronto, "The Leader" of Nov. 22nd, 1852, in an editorial on "Medical Education," clearly explains the view which then prevailed. "When we take our stand on an impregnable principle of political economy, and assert that the State is not justified in employing public moneys to produce an article which experience has shown that private enterprise is abundantly able to supply, no one is bold enough to controvert this principle." Also from the same paper of Oct. 26th, 1852, "There are three medical schools in Toronto. Why continue to sustain one by public money, when the facts show that the article you want is supplied by private enterprise?" The learned President, however, with characteristic simplicity and self-confidence, says that he has "No doubt that the abolition of the Medical Faculty was largely due to the antagonism between the late Dr. Rolph and certain professional rivals; the Hon. Dr. Rolph being at the time of its abolition, a member of the

Government." That a Canadian legislature, sitting in Quebec, and composed of members coming from every part of both the old Provinces of Canada, could be influenced in any appreciable degree by "antagonism" between Dr. Rolph and certain rival doctors in Toronto, of which alleged "antagonism," the members, with hardly an exception, must have been entirely ignorant, is a suggestion in the last degree absurd. If all Sir Daniel's views on questions pertaining to medical education, rest on foundations as flimsy as this, they can hardly be deemed worthy of much attention. Having been in 1852 engaged in medical practice not far from Toronto, and quite familiar with all the circumstances, I can testify that the decision reached by the Legislature was the result of the sound common sense policy laid down and acted upon in regard to educating men for lucrative professions, with the cost of which, the members held, *the country should have nothing whatever to do*, and to-day, public opinion is on the side of this principle as in 1853.

II.—A Slur cast by Sir Daniel on the Late Hon. Dr. Rolph, who died in 1870.

Sir Daniel Wilson, somewhat obscurely, however, makes a further allusion to the late Hon. Dr. Rolph, which as a matter of good taste would have been much better omitted. *De mortuis nil nisi bonum* is a familiar adage, which is happily very seldom forgotten.

The allusion is in connection with hints alleged to have been thrown out by him, regarding the re-establishment of the Medical Department of Toronto University not long after its abolition.

Dr. Rolph was a man eminent in many ways, and with reference to this allusion, I have pleasure in doing an act of simple justice to his memory. As one of Dr. Rolph's intimate friends, and his colleague in the Medical Department of Victoria College from 1855 to 1870, when he retired from active work, I never heard him say a word on the subject Sir Daniel refers to. During all those years, probably no one knew him better, or saw more of him than the writer, and he took the greatest interest, and talked freely with his friends on every matter connected with medical education. Had this subject been on his mind, he certainly would have mentioned it. As Dean of the *entirely self-sustaining* Medical Department of Victoria College, which he so ably conducted for many years, Dr. Rolph was satisfied and happy, and greatly beloved by all the students. The medical men he educated, are scattered all over Canada, and not a few of them have been, and others are now, worthy members of our several Canadian legislatures, and, with hardly an exception, they cherish and revere his memory.

III.—The Advance of General Scientific Knowledge, good ground for satisfaction.

Everybody unites with the learned President in rejoicing at the advances made in all branches of science. It is most desirable to have every department of science necessary to a thorough *general* education, not only taught, but well taught, in the Provincial University which exists for the very purpose of affording the highest *general* culture to our youth who fill her halls, so that they may be ornaments to any profession or calling they may subsequently follow. We are proud, too, of our Agricultural Colleges, as indispensable to a farming province like Ontario. For the more scientific the farming, the better for every man in the Province. No one grudges the support given to our normal and other schools—to the schools of pedagogy, and of practical science and engineering, so as to provide us with well educated teachers, surveyors, civil engineers, analysts, and with people skilled in any other departments of science which the country may require, for the development of its natural resources, and which unaided private enterprise could not adequately, or perhaps at all supply, as we have not now, and hitherto we never have had, any such schools or colleges established in Ontario by private enterprise. For such necessary purposes which the country's actual needs call for, by all means let public aid be given always wisely, yet in no stinted way. Up to this point but not beyond it, the writer agrees with the learned President.

IV.—No Medical Education at the Public Expense.

The people of Ontario are in their own opinion quite sufficiently taxed now. In not a few cases hard working farmers and others find it just hard enough to make a fair living for themselves and their families. The province with praise-worthy liberality places a thoroughly good *general* education within the reach of every young person who cares to have it. This can be carried even to graduation in Arts or Science in our Provincial University, and in addition private munificence has stepped in, for recently the Hon. Chancellor Blake gave the princely gift of $20,000 to aid Arts students, who are beginning their studies, by providing scholarships at matriculation. But to give learned and lucrative professions, wholly or even partially at the public cost, is quite another thing. There is no such special lack of doctors as to call for or justify our increasing their numbers at the public expense. The profession of medicine indeed is now so well filled that many of those educated in all our medical colleges go to the United States and to other countries for a living. Are our farmers and all other people in Ontario willing—or is it right that they *should* be taxed to educate doctors to supply other countries than their own? It is hoped that enough has been adduced on this point to show the unreasonableness, and manifest injustice as far as the public is concerned, of continuing to subsidize medical education in the Provincial University. It clearly appears from his letter, however, that the learned President is prepared to go *any* length in endeavoring as far as possible not only to continue, but to extend the evil we complain of. Under all the circumstances of the case, it will, we think, be admitted that sufficient reasons have been given in this letter to justify us in the most strenuous and increasing opposition to an unfair use of public funds, which should never have been allowed to have a beginning, for we again assert, that this subsidizing of one Medical Faculty, is a three-fold injustice—*unjust to the public, to the Arts Department of the University* and last, but by no means least, to *the self-supporting Medical Colleges,* for which, as having chartered them, Government is bound, werepectfully submit, to secure absolute fair play, which is all they ask for. Can there be a more reasonable request? Ontario has shown by forty years of experience that medical colleges can be most efficiently conducted on the entirely self-sustaining principle—providing buildings and everything else they require, out of the fees of the students they teach. Should any colleges happen to secure private endowments, this is a mattter with which no one has any concern. But as a rule, those which are entirely unendowed, are said to do better work than others, for as their success depends entirely on the ability, zeal and assiduity of their professors and lecturers, these feel necessitated to put forth all the energy they possess, and therefore are believed to do better teaching. It was forty years ago proved, and it is no less decisively proved to-day, that the *quality* of the professional men educated by a Medical Faculty maintained in part at the public expense, is not a whit better, nor do they take any higher standing than others do, towards whose education not one fraction of *public* money has been contributed. To-day, and for many years past, the standing of the candidates from the various medical colleges, at the examinations of the several examining boards in Great Britian, and at the examinations of our own Medical Council, which all who intend residing in Ontario have to take, proclaims this with trumpet tongue over the whole land. There can be no better evidence than this of the extreme unwisdom, as well as the gross injustice of subsidizing as is now done, *one* out of the *six* Medical Teaching Faculties, which, including the colleges for women, exist in Ontario. Our people are sensible and shrewd and quite able to form their own judgment in regard to such matters, and if the future is to be judged of, by the past, the injustice complained of will not be allowed to continue long.

V.—The President's Garbling.

Sir Daniel refers with much warmth, and in strong language to my reference to the Legislative grant of $160,000 given to the University after the fire. He speaks of my "making to the Attorney-General, a charge against the authorities of the University (page 4 and page 6), of my letter having been forwarded to him by the Hon. the Minister of Education," with the request for a reply to its grave charges, including that of fradulent misappropriation of public funds obtained on false pretences." I never made any such charge, and never used, or wrote any such words as are here attributed to me. Had Sir Daniel been a younger man, I would with the utmost indignation have thrown back these words upon him. I content myself with entirely repudiating the idea he disingenuously seeks to convey to those who only see the few extracts he has garbled from my letter, with which even he appears to have deceived himself. Such a thought as the "fradulent misappropriation of public funds obtained on false pretences" on the part of the "authorities of the University" never once entered my mind, nor has any one of the many who have spoken to me on the subject ever hinted at such an inference as that which Sir Daniel has drawn from my letter. I greatly respect the Senate and the Professors of Toronto University, and would as soon think of charging the Premier of Great Britain with till-tapping, as of doing what Sir Daniel Wilson's letter indicates What I meant was this—and a careful reading of Sir Daniel's many admissions in his letter, and a knowledge of much to which he either does not refer at all, or passes over very lightly, has only intensified my conviction of its truth—that the legislature of Ontario which voted the $160,000 referred to, had not the remotest idea, any more than the members of the *Government themselves,* that a very large sum, equivalent to a considerable and possibly the greater proportion of the amount granted, would be spent in erecting buildings largely for medical teaching purposes, and it appears to me incredible, that it should be so spent in this way which, it is admitted, neither the legislature nor the Government for one moment either intended or anticipated. I refer, of course, to the large expenditure for dissecting-rooms, vat-rooms, etc., for the study of human anatomy, and for other class-rooms used for medical education in *this one college,* while all other medical colleges in the Province provide everything of this kind wholly at their own expense. And I have reason to know, that an influential section of the University Senate takes the same view of this matter. I know also, that however large the amount which has been spent in what I regard as the unjust, and unwise way objected to, and which was all public money quite as much as the grant—even if it had exceeded the amount of the grant, it would have been raised somehow or other, and the entire $160,000, that is the whole grant, as a matter of course, applied to the special purpose for which it was voted. Everybody at all acquainted with the financial affairs of Toronto University at the present time is aware that the money already spent on these buildings, has seriously crippled the University, and prevents the possibility of some departments, however urgent their needs, having their due share of money spent upon them. From Sir Daniel Wilson's letter it might be gathered, that the Medical and Biological Departments constitute almost the entire University. This is, however, by no means the case. Yet from the lavish way in which money has been spent on these, and the warm justification of this expenditure by the learned President, and his proved willingness to increase it, one cannot help thinking that he considers it the right thing to do, although the inevitable result of this policy is to leave some important departments largely unaided to struggle along as best they can. Is this policy not likely in the near future to prove injurious to the best interests and usefulness of the University?

VI.—Sir Daniel Wilson on the Biological Buildings and the Uses to which they are Applied.

The President seeks to throw doubts on my statements as to the Biological Buildings being used to any great extent, or having been intended largely for medical teaching purposes. He seeks to befog his readers by quoting the number of square feet contained in the buildings, etc. This the President parades as "facts," but they have very little bearing indeed on *facts* of another kind taken from the official calendar of the University of Toronto Medical Faculty, for 1890-91, in which there is a full-page-sized cut, of the main part of the Biological Building (facing page 28), while on page 27 is the following: "The teaching in this "department will follow closely the requirements "of the College of Physicians and Surgeons, and "will, in addition, comply with the regulations of "the University of Toronto" (that is, in medicine).

"University of Toronto Medical Faculty.

"The fourth session since the re-establishment "of the Medical Faculty of the University will commence on Wednesday, Oct. 1st, 1890, when the "opening lecture will be delivered in the *Biological* "*laboratory* (page 19)." On this occasion, Oct. 1st, 1890, Sir Daniel Wilson, LL.D., etc., is reported in the Toronto *World* of Oct. 2nd, 1890, to have said that "Toronto University had spent some $130,000 on these magnificent buildings to give medical students the best equipped school in Europe or America." Why did the President not refer to this speech in his letter? He should have quoted it.

The official calendar of the University Medical Faculty for 1891-2, has the following paragraph:

"UNIVERSITY OF TORONTO MEDICAL FACULTY.— "The fifth session since the re-establishment of the "Medical Faculty of the University of Toronto "will commence on Thursday, Oct. 1st, 1891, when "the opening lecture will be delivered in the *Biological laboratory.*"

"The lectures and demonstrations in the subjects of the first and second years will be given in the *Biological laboratory* and in the *lecture rooms of the University.*"

This last paragraph means that *two* sessions of medical teaching work, out of the *four* required—that is exactly one-half of *the medical course*—is done in buildings erected at the public cost. After trying, notwithstanding his full knowledge of this being the case, to show how little the new buildings are used for medical teaching, and saying, although they contain dissecting-rooms, bone-rooms, vat-rooms, etc., that they would have been built all the same had no Medical Faculty existed, he virtually admits that his contention is incorrect, because compelled to do so, for on page 6 he says, "And in so far as certain portions of the building are set apart for the Medical Faculty, a report was obtained from the architect, specifying their estimated cost, and on the basis thus furnished an annual rent of $1,200 is charged to the Medical Faculty, in accordance with the report of a joint committee of the Board of Trustees and the Senate, as what, in their estimation, 'would be a just and adequate allowance' as interest at four per cent. on the cost of erection." (See recent Finance Report of University Committee.) It is said that this decision to charge rent was only recently reached, and was not contemplated by the promoters of the medical part of the building. This $1,200 looks well and fair on paper, but in reality it is not in any sense an adequate return for the great cost, as well as the deterioration in the value of the property. To understand this last point clearly, it has to be borne in mind that dissecting-rooms, vat-rooms and others, where human anatomy is studied and taught for at least six months of each year, now form part of this fine pile of buildings. The parts of the building actually used for this work, must necessarily have a very strong and—even to many medical men and students—a most unpleasant smell. This is so all-pervading that it creates a dissecting-room atmosphere far and near, so as to make even a large building more or less unpleasant from the basement to the roof. This smell it is impossible entirely to get rid of. With care, it may be lessened in some degree, yet, do what you will, the air in adjoining apartments will often be found so unpleasantly tainted as to be positively sickening to a great many persons. I have already heard of a good many complaints by University Arts students on this very ground, some saying to me that "the smell was simply abominable." Indeed, so long as dissecting is carried on at all, or bodies kept in vat-rooms in any building, this hateful odor will inevitably continue. It is said that the plans for the dissecting and vat-rooms, and the rest of the "Medical Faculty" portion of the building, was never submitted to the Senate. Is this the fact or not? Sir Daniel Wilson tries to show how little room the medical students occupy in the Biological department, but everyone says there are a great many more of them (said to be fully two to one—see University Class List for 1891) than there are of Arts students, who are taking the science course. I can venture the opinion quite safely that, let dissecting go on, and the regular courses on anatomy continue to be given in the building as at the present time, and before long no one will be found willing to occupy, either as a teacher or student, any of the lecture or other rooms near enough the anatomical region to be more or less smell-stricken, unless those who are either teaching or studying human anatomy. It will soon all be left for the medicals. How far will the $1,200, to be charged for rent, go, in meeting the interest on the cost of those extensive portions of the building thus rendered comparatively useless? Twice $1,200 would not do it. Besides this, is it fair to have any Arts professors, or Arts students, male or female, subjected to this unbearable unpleasantness? Under existing circumstances, non-medical students—even ladies—have, against their wish, seen what they would gladly have avoided seeing, and some have suffered more or less from contaminated air, who did not expect this sort of thing when they entered on their studies. Having been a medical teacher nearly all my life, I speak from experience. In Trinity Medical College we suffered much some years ago from the air of our entire building being more or less tainted in this way, no matter what might be done to prevent it. For the sake of professors and students alike, the Faculty, as soon as possible, but *entirely at their own cost*, erected the admirable building now in use for anatomical work, which is completely isolated, and ever since we have had no discomfort. But there is another pertinent question: With the regular increase in her own Arts classes, and the advent of the Victoria Arts students in the coming fall, will every nook of space in the entire building, available for teaching, not be required for purely Arts and General Science purposes?

VII.—Sir Daniel Wilson Approves of all the Outlay so far, of Public Funds on Medical Education, and is anxious to go even further.

Sir Daniel Wilson thinks it quite right that the State should pay a large share of the cost of medical education, including building dissecting-rooms, etc. Not long since he was a member of a committee of the Senate, indeed, he seconded the motion defining its duties, viz., "To urge upon the Government the propriety of constituting Anatomy, Pathology, and Sanitary Science a part of the work of the University, and to assist the University in providing the requisite means." This resolution appeared in the *Globe* of May 11th, 1891. It simply meant, in addition to all the already great outlay on buildings, the establishing of three State-paid professorships in medicine. The project was vigorously protested against at once, and, fortunately, came to nothing, and the committee was discharged. The Hon. the Chancellor, and other influential members of the Senate were known entirely to disapprove of it; yet, as an illustration of the pertinacity with which the idea of getting all that can be got from the public purse is clung to, certain speakers of the same way of thinking as Sir Daniel, at a University public gathering not very long since, referred to further action in this matter as being "merely postponed" on account of the losses caused by the late fire, thus foreshadowing their intention in due time of pressing this preposterous claim on the Government.

VIII.—Fees Earned by University paid Arts Teachers, should be used entirely for Arts support.

In my letter, certain fees paid by the medical students in the first and second years, were spoken of. Sir Daniel thus refers to this point: "Under a University Statute confirmed by the Lieutenant-Governor-in-Council, all fees paid by medical students are apportioned to the Medical Faculty." In the interpretation of this statute, fees paid by students for Physiology, Chemistry and Biology, have been so apportioned. Here I would very specially ask—Under whose "interpretation" of the statute was this done—that of the Attorney-General, or the Minister of Education, or the Chancellor of the University? The aggregate amount of the fees thus earned entirely by professors and teachers, paid by the University, or from other public funds (a small portion of it being earned in the School of Practical Science), is no trifling sum, being $34 from every first year's student, and $37 for every student in the second year. Allowing sixty students in each of these years, the total amount would be $4,260.

According to ordinary business principles, this money should go, without any deduction, towards the payment of the salaries of the teachers who give the instruction.

This would make just so much more public money available, for the many purposes where it is so much needed, especially in the Arts Department of the University. Sir Daniel Wilson himself, however, after making certain deductions from these fees, for one purpose or another, admits that those for Chemistry (general), and Physiology, do go into the medical fund—this amounts to $24 per student in the first and second years respectively—sixty students in each year will give 120x24, = $2,880. This sum is earned wholly by University-paid Arts Professors, and clearly, therefore, belongs to the Arts Department. It would go a long way towards paying the small salaries given to assistant teachers in many of the Arts Departments where extra teaching is much needed, but cannot be had, to the extent required by the students, from want of funds. In the self-sustaining colleges, all the teaching is done in every subject by the Professors, who are paid out of the fees they earn—and all expenses are also paid out of these fees. Sir Daniel himself admits that some "re-adjustment of some of the arrangements heretofore adopted in reference to the special medical fund, may commend itself to your judgment under present circumstances, is possible."

IX.—Important Points Left Unnoticed—Irrelevant Matters Dragged in.

Sir Daniel passes over without the slightest notice, the self-evident injustice of subsidizing one medical college at the public expense, and tacking it on to the Provincial University as its Medical Faculty, thus bringing it into unfair competition with the other FIVE which are altogether self-sustaining. Nor does Sir Daniel allude to the fact stated in my letter, that the work done in the latter institutions has been proved year after year for many years, before competent medical boards at home and abroad, to be as good as any done in Canada. This is absolutely undeniable. The restoration of a Medical Faculty to the Provincial University has been proved once more to be a very great, and quite an unnecessary, expense to the University and the country. One disastrous result has been to de-provincialize the University in Medicine, making her, not a friendly co-worker with all our medical colleges, as from her provincial character she should be, but bringing her down to the undignified and unprovincial position of being a keen and a most unfair, because a subsidized, competitor, with every one of them, for each student—and this notwithstanding the fact, that some of these colleges, our own for example, have been for many years affiliated with her, under their respective charters. The President sees fit to drag Medical Council matters, too, into his letter. What have these to do with the question of the unfair public subsidizing of medical education in one college out of six? The gentlemen to whom the speaker in the Medical Council refers, quoted by Sir Daniel, are amongst the best friends of that body, and are excellent judges as to what is its wisest and best policy. All they desired was, to have time given for the careful consideration of every step, when great changes are being made, so as to avoid the taking of even one false step, which might create trouble and possibly have to be retraced. The President also refers to Trinity Medical College having been asked five years ago to join in the formation of the restored Medical Faculty. There is no use bringing this question up now, as at present, it has no bearing whatever on the matter in hand. One objection to her doing so, which is unanswerable, is stated in my letter, that "Medical colleges large enough to require the services of a complete staff of professors and other teachers, can no more be rolled together than can large congregations, or public schools." Besides this, Sir Daniel knows very well, that the scheme submitted in 1887 to Trinity Medical College, and the agreement made subsequently by the University, with the Toronto School of Medicine, were very materially different. The learned President, too, thinks it a good plan as in Edinburgh, to have many hundreds of students attend the same classes. This necessitates the employment of a perfect army of grinders, causing a large additional expenditure to every student. Besides, professors who can keep up the attention and profitably teach classes of several hundreds are few and far between, either in Canada or elsewhere. As a practical medical teacher, I much prefer the London plan, of having self-supporting medical schools with large, yet not too large, classes, as better both for professors and students. Once more, I am surprised that the President should have stooped to refer to a matter long since fully answered, but to which he calls even special attention. This is the closing paragraph of an old letter of mine, dated March, 1887. The President should have said, but he did not do so, that this entire letter was written for the very purpose of showing how "unwise" and "undesirable" it would be, to restore a Medical Faculty to Toronto University, that to do so would reduce the University so far as Medicine was concerned, from her Provincial position as a centre, round which all the medical colleges might cluster, each sending up a quota of its students to graduate every year, to that of a mere local college competing keenly for students.

In the light of to-day, does this not seem somewhat prophetic? The only part of this letter Sir Daniel quotes, is the very end, "I think it will be ample time to give the subject full consideration, when we learn that the Government of Ontario, with the cordial support of our Provincial Legislature, has fully decided to create, equip and endow liberally, a new medical teaching body; and to provide for it a staff of the best teachers the country can furnish; each of whom shall have a salary secured to him of not less than $2,000 a year, for each of the principal chairs; and suitable retiring allowance, when, from age or ill health, he is no longer able to discharge his duties. Till this is done the project is a mere "castle in the air"

This letter ended as it did, only because on indubitable authority I was informed, and then believed, that the "conditions" pre-supposed by me, of "endowing and equipping," the giving of salaries and retiring allowance, etc., were just as likely to occur, as would be the appointment of Sir Daniel Wilson, as Admiral in Chief of Her Majesty's Navy, or the extension of the Toronto Street Railway to the moon, and no more so. The old letter is filled with all sorts of reasons showing that matters had much better be left as they were, and that the proposed scheme would be very unlikely to work well, and that the carrying of it out, bristled with many real and most practical difficulties. Has this not proved to be the case?

In answering my letter, Sir Daniel has left entirely out of sight its principal feature, viz., the huge injustice and impolicy of subsidizing with public funds, *one* and *only one* of our six medical colleges. Yet this is one of the main points of the whole discussion—not only so—but he defends all the outlay of public funds connected with this injustice, and has shown himself ready, and even anxious, to increase it, and he never so much as mentions the crippling effect of the recent unprecedented expenditure on the other departments of the University.

In the absence of sound, and often of any, arguments against my contention, he has resorted to all sorts of detraction, and has, as I have already said, put into my letter as used by me, against the authorities of the University, words I never wrote or spoke, and thoughts that never once entered into my mind; whether the words I allude to are Sir Daniel's own, or merely quoted from an official letter addressed to him, and endorsed by him, or not, I do not know, but in either case they are, to use the mildest word possiblo, entirely and most mischieviously incorrect, and misrepresenting. He has dragged all sorts of subjects into this discussion, which have nothing more to do with it than the fixed stars.

In this reply, much longer than I could have wished, I have striven to confine myself closely to the subject under consideration. I close by sincerely hoping that very soon a settlement of this question *just* to all concerned, may be reached by the Government.

I have the honor to be,
Yours with the greatest respect,
WALTER B. GEIKIE,
Dean Trinity Medical College.

HOLYROOD VILLA, MAITLAND ST.,
TORONTO, March 10th, 1892.

ADDENDA.

I.—The Present Position of the University Law Faculty.

Also authorized by the Act of 1887, has perhaps, however, given the best clue of all, to a wise and just solution of the whole matter. Entirely unlike the University of Toronto Medical Faculty, the Faculty of Law is most properly constituted as not to be in direct, or in any kind of competition either with the present law school in Toronto, or with any branch of it, which may be hereafter established elsewhere. On this ground alone, were there no other, the Law Faculty is quite unobjectionable.

The Law Faculty of the University of Toronto, in striking contrast to the Medical Faculty, has not cost the University or the public one farthing, for buildings, equipment, or for anything else. So far as is known neither any lawyer, nor the law school can justly make any objection to the present constitution of this faculty, of which the legal profession may well be proud. The law professors in the University, as well as the lecturers are unsalaried and honorary only—and the occasional lectures they give are of so general a character as to be a proper study for any one claiming to be well educated in the proper sense of the term. The members of the Law Faculty have evidently been selected for their acknowledged eminence, a feature worthy of all commendation. If the University of Toronto *must* have a State Medical Faculty of some kind, there could be no objection fairly brought against it were it constituted exactly on the model of the Law Faculty as this at present exists. With the professors and lecturers made honorary only—selected from the very best names in the various teaching medical colleges of the province. The occupying of this position need not and should not at all affect the relations af the professors so appointed to the medical colleges to which they respectively belong. Such a faculty could well act as University examiners in medicine, and being provincial in its character would be not only in keeping with the character of the University, but would be sure to attract students for examination from all quarters, any lectures the faculty might give would be optional and special — and on such subjects of general interest as would be calculated to do good to the general profession, and to the public. The extensive buildings recently erected at the public cost, and now used chiefly for medical teaching purposes could be well utilized by the University — for example, for a mineralogical lecture room and laboratory, which are much needed. Some other departments of this work could readily use the newly built dissecting rooms which, being lighted from the roof, would be admirably adapted for many useful purposes.

II.—Mineralogy and Geology in the University of Toronto.

To the Editor of the World:

Sir,—In your notice of the last meeting of the University Senate it is stated, with regard to a report from a special committee appointed to inquire in the department of mineralogy and geology, that certain temporary accommodations in the biological department have been arranged to the satisfaction of Prof. Chapman, leaving the question of more permanent accommodation for future consideration." May I beg to assert most emphatically that the proposed arrangements are in no way satisfactory to me, except as the merest temporary expedients? By an abuse of power I have been thrust, against my strenuous protest, into the medical portion of the biological building, where I have to share with the medical faculty an anatomical theatre as a lecture room, into which dead bodies are constantly brought, and in which it is not possible to make proper arrangements for the efficient teaching of my subject. Of course, if I can have nothing better, I must do the work as I best can; but were I to say that an arrangement of this kind was "satisfactory" I should be wanting in duty to my students and the public, as well as to the University itself.

I have asked that some disinterested person, some expert accustomed to teach natural science, be invited to report upon the requirements and the present state of the department, but this does not seem to meet with approbation. I have reason to believe that the Government of Ontario would willingly see this department—so important in a country like ours—put upon a proper footing, but some occult influence seems to stand in the way. One would suppose that my experience of more than forty years as a professor in this country and in England, and the fact that my name has obtained honorable mention in a score or more of British, American, French and German works, would entitle my opinion to some consideration; but as medical students do not attend the department it seems impossible to obtain due recognition of its value. Whilst large sums have been spent and are being spent on other departments, any accommodation would appear, in the estimation of the university authorities, to be good enough for the Department of Mineralogy and Geology, but the public must not suppose that I am willing to endorse this view or to accept the situation without protest and complaint.

E. J. Chapman,

Professor of Mineralogy and Geology in the University of Toronto.

Toronto, March 15th, 1892.

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HÆMATURIA.*

BY WM. BRITTON, M.D., TORONTO.

Continued from March No.

As has been said, each portion of the urinary tract, from the malpighian corpuscles down to the meatus urinarius, having its own individual histology and functions, is subject to its own peculiar diseases, and therefore, as hæmaturia may accompany almost any urinary ailment, the first and most important step from this starting point towards a diagnosis is one of topography; and with this object in view, the following data will be useful:—

1st. The color.

2nd. The degree of coagulation.

3rd. If coagula exist, of what form?

4th. Relation of the blood to the urinary stream.

5th. Condition of the urine as to quantity, reaction and presence of other normal and abnormal constituents.

6th. Constitutional symptoms and the history of the attack.

As has been stated, brightness and coagulation of the blood point, as a rule, no farther up than the bladder, unless the renal lesion is much greater than usually met with.

Urethral hæmorrhage is ordinarily normal as to color, and may or may not be coagulated; and if so, coagula that have formed in its outer part are moderately small in calibre and elongated, while those of a deeper origin, in the neighborhood of the bulb may be much larger. It usually precedes the flow if near the meatus; and if more deeply situated, it either flows unmixed by the sides of the urinary stream or comes afterwards.

It does not always follow, however, because urethral disease exists, that the hæmorrhage has its origin at that point. A tumor or stricture may so occlude the passage as to produce atony and congestion of the bladder; and in this instance the bleeding would be vesical.

The same rule will also apply to all pathological states of the prostate, causing hypertrophy and obstruction.

An exception to this rule of exceptions occurs when the prostate is in a highly congested condition, for extravasation may occur backwards from this gland into the bladder, which would apparently render the hæmorrhage vesical in character.

As a general rule, the prostate and urethra being excluded, if the blood is bright, clotted, not intimately mingled with the urine, and increasing in quantity towards the end of micturition, it is derived from the bladder.

An exception to this would occur in case it was poured down rapidly from the ureter or kidney.

Occasionally a difficulty in diagnosis may be experienced when bladder hæmorrhage is slow, for free admixture would take place, coagula would be broken up by prolonged contact with urine, and, if marked acidity exist, the color would be considerably darkened.

Sir Henry Thompson advises as a means of elimination, the collecting of the urine drop by drop, through a retained cathetor after thorough washing. If in those circumstances it still appears mixed, uncoagulated and darkened, the presumption as to its renal origin would be tenable.

The most frequent sources of vesical hæmorrhage, are wounds, contusions, stone, tumors, malignant or papillomatous, and inflammation.

There is nothing special to be said of the connection between this symptom and wounds of the organ.

In cases of stone the bleeding is irregular in its occurrence, often very slight in proportion to the magnitude of the other symptoms, and much aggravated by exertion.

Cystitis, if productive of hæmorrhage, is apt to be severe in character, and therefore the strangury as well as the constitutional symptoms, are extreme. The presence of pus or abundant mucus, with perhaps alkalinity and phosphates in the later stages, will settle the matter of origin.

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*Read before the Ont. Medical Association, June, 1891.

Malignant tumors ordinarily cause more hæmorrhage than stone; and, further, the constitutional symptoms as well as the signs of enlargement, elicited by palpation per rectum, together with negative results on sounding all point in the same direction.

There is a variety of bladder bleeding which is perhaps, peculiar. For days together, the urine has a dull red color, and is liable at times to contain large quantities of coffee-ground sediment; at any time an extraordinarily violent contraction of the bladder produces a sudden and considerable increase of blood discharge. This is most frequently a complication of papilloma, and the last mentioned feature is produced, it may be presumed, by the undue and forcible compression of the fragile growth by the contracting organ.

The ureter cannot always be distinguished from the kidney as a source of hæmorrhage; and in cases of impacted calculus when the blood might be fairly thought to proceed from this tube, I have not always been able to find the vermiform coagula that are said to form in the ureter.

Perhaps the most common local cause of renal bleeding is calculus, in the pelvis of the kidney; and of such concretions, the urate being the roughest, and the phosphatic the most irregular in contour are productive of most hæmorrhage; but the extent of lesion, size of stone, and amount of bleeding are not always in proportion.

Two of the most instructive cases of hæmaturia I have seen, because they required most patient investigation in order to arrive at a solution of the cause, and in which hæmorrhage was obstinate and extreme, arose solely from that complex condition lithiasis. In both instances repeated attacks occurred, closely resembling a fit of the gravel. Extreme pain was felt along the track of the ureter, strangury and partial suppression of urine, followed by a free urinary flow, well charged with blood, in part fluid and partly coagulated. Soundings were made repeatedly but without discovery of stone. The first urine voided after a subsequent attack was carefully washed, and considerable quantities of fine sharp sand found. Measures were now directed towards the faulty liver, the real cause of the trouble, and with the happy result of a marked amelioration of the symptoms. Such a state of affairs I have found in infants as well as in octogenarians. It may be asked how could the passage of sand, almost as fine as an impalpable powder, be productive of so much bleeding and pain. The crystals form in the straight kidney tubules occlude them, and are only carried into the pelvis by the *vis a tergo* of the accumulating urine. Consequently as there are possibly hundreds of such sharp crystals the vascular lesions are many, and bleeding being consequently profuse, large clots form, which in traversing the ureter, excite pain, often as excruciating as that due to calculus. I do not think this form of trouble appearing in young infants is sufficiently emphasized; for before I had given the matter some special thought I had seen several cases which I looked upon as varieties of other disorders, a very hazy explanation of which I had to satisfy myself with, but in the light of the pathology of lithiasis they are easily explicable.

That peculiar disease urethral fever, when accompanied by hæmorrhage is worthy, in this place, of special consideration on account of the apparent disproportion between cause and effect. For example the catheter is used dexterously and with antiseptic precautions, for the relief of retention, caused by senile paresis or prostatic hypertrophy; and, although the kidneys have not been found diseased, there may be violent rigors followed by marked constitutional fever, extreme congestion of the renal vessels and profuse escape of blood.

The connection appears to be, that during retention the pressure of the pent up urine supports the distended and attenuated capillaries, and this external support being withdrawn, miliary extravasations occur. An analogous state of affairs not infrequently follows the tapping of a hydrocele or the operation of thoracentesis.

A description of the treatment of hæmaturia would necessarily involve that of all the diseased conditions giving rise to it, and therefore must be omitted with reference to one or two particulars.

1st. In hæmorrhage of renal origin, rest is perhaps the most potent factor in the way of restraint, and with this may be combined the use of such astringent remedies as tincture of iron, the iron alum, mineral waters, sulphuric acid, matico and ergot.

2nd. In case of bladder hæmorrhage instrumental interference is to be avoided as far as possible, lest the irritation excited still further complicate the matter, and be productive of increased flow. 3rd. The tendency is for clots to be broken up by the urine, and unless the disease giving rise to them also produces obstructions sufficient to ordinarily necessitate the use of the catheter, they had better be left alone; but if the contrary condition exists, the urgency being extreme, they may be gently broken up with the point of a double channeled catheter and lavement resorted to, perhaps after suction has been employed. Opium as an adjuvant, will not be out of place, as it will keep the bladder in a state of rest.

4th. There is much conflict of opinion as to the efficacy of cold externally as a hæmostatic for the bladder. Sir Henry Thompson asserts that no amount of cold applied to the hypogastrium affects the temperature of the bladder, and, therefore, used in that way it is quite impotent, although, perhaps, it is more effective when applied per rectum.

Many cognate matters have cropped up in dealing with the subject under discussion, and time being limited, statements may have been made in so brief a manner as to be necessarily without sufficient qualification to save them from the opprobrium of dogmatism, therefore, I have to crave the indulgence of this meeting.

ACUTE NECROSIS OF GROWING BONE.*

BY GEO. A. PETERS, M.B., F.R.S.C., ENG., TORONTO.

(Continued from April No.)

Diagnosis.—The early diagnosis of this disease has such an important bearing upon the line of treatment to be adopted; and the frequency with which it is mistaken for typhoid fever, rheumatism, or an acute specific fever, is so great that one may dwell with profit on a few of the points involved in its detection.

The early symptoms of chill, followed by fever, vomiting, with more or less obscure pains in the back and limbs, are common to this and many other diseases of childhood, and accordingly do not aid us much in arriving at correct diagnostic conclusions. The malignancy of this disease, however, is such that even in the early stages the rapid depression of the vital forces is perhaps greater than in any of the other diseases of childhood. Symptoms of great depression then should lead us to make a careful examination of all parts of the body, and I would suggest that in all cases of disease in growing subjects, attended with grave symptoms, acute necrosis is one of the diseases which should be borne in mind in summing up the whole clinical aspect of the case preparatory to making a diagnosis. It must ever be remembered that young children are frequently conscious of extreme pain, and yet have only a vague idea of its exact localization, and so pain in an epiphysis might readily be referred to an adjacent joint. Again, cases of multiple acute necrosis have been described by Senn.* Such cases—particularly if complicated with synovitis of the neighboring joints, as may be the case—would be distinguished from acute articular rheumatism with the utmost difficulty. Moreover, the case related in this paper substantiates the observation of others—that the two diseases may be present in one individual.

Under the heading of the Diagnosis of Rheumatism, Fagge† refers to several cases of acute necrosis which were treated for rheumatism, the mistake not being discovered till the patient came to the *post-mortem* table. The most reliable points in the exclusion of rheumatism are the absence of the characteristic sour acid sweats, the great depression which is present, and the localization of the pain and tenderness—not *in* the joint but near it. In fact, if I were asked to name a crucial point in the diagnosis of this disease, I should say the presence of acute pain and excessive tenderness in the vicinity of an epiphyseal line. In a very early stage, even before the periosteum is affected to any extent, a very distinctly circumscribed tender spot may be found. At this time, as there may not be any affection of the periosteum, there will not necessarily be any increase in the circumference of the limb, but when a collection of pus occurs under the periosteum there should be no longer any difficulty in arriving at a diagnosis. Even at this stage, however, it has been mistaken for cellulitis or phlegmonous erysipelas, but these conditions are rare in childhood.

From the acute specific fevers and typhoid fever the disease will be distinguished by the local manifestations which usually obtrude themselves upon the observation during the first week. As before remarked, in doubtful cases the tender spot should always be sought.

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* Read before the Ont. Medical Association, June, 1891.

† Op. Cit. p. 236.

‡ Fagge's Practice of Medicine, Vol. II., p. 566.

Treatment.—Though this is probably at first a local disease, constitutional treatment must not be by any means neglected. The alimentary tract being one of the channels by which infection undoubtedly occurs, free purgation is in order, and no drug may be more fitly used than calomel, given in say half-grain doses every half-hour, until liquid evacuations are produced. Kocher advises salicylate of soda in large doses, and the exhibition of this drug might act beneficially both as an antipyretic and as a disinfectant of the bowels. Stimulants are often required early and freely, and the giving of nourishment in an easily assimilable form must not be neglected.

The importance of local treatment can not be too strongly insisted upon. The application of iodine blisters and liniments is not only useless but hurtful, as these tend to obscure the symptoms, and mislead the surgeon, while they lead the patient and his friends to believe that some good may be done by external application, and thus dispose them to be less willing to allow surgical interference. I am most strongly of the opinion that nothing will do the least good, short of a free incision down to the seat of the disease whether that be in the periosteum, in the cancellous tissue of the end of the shaft, or in the medulla. And I am fully in accord with Tubby and Senn, in urging that this should be done at the earliest possible moment after a diagnosis has been made. Frequently the friends will raise strong objections to an operation for which they can see no indication; but this is one of the cases in which the surgeon must assert himself very forcibly, and so far as possible use, his authority in order to carry out what he well-knows to be essential to the welfare of his patient. The operation should be performed by Esmarch's bloodless method, if thenature of the part will permit of this, but the limb should be exsanguinated by simple elevation, without the application of a bandage, thus avoiding the risk of pressing clots, pus, or germs into open veins or lymphatics. In this way a deliberate dissection [illegible] be made down to the diseased tissue, and even [illegible]iosteum be found apparently healthy the [illegible]not falter, but should unhesitatingly drill or chisel the bone on the shaft side of the epiphysis, and if pus is found the opening should be enlarged so as to afford free drainage. It may be necessary to chisel away one wall of the medulla to a considerable extent, and this should be done with extreme care, lest the shaft be driven away from its epiphyseal attachments which are loosened by the inflammatory process.

If the operation is not done until a late stage, when the periosteum is raised by pus, for some distance along the shaft, and when a considerable portion of the medulla is affected, it will be necessary to make several openings into the medulla at various intervals. These should be made by means of separate incisions through the skin, so as to avoid inflicting one large wound, which might destroy important structures. The affected medullary tissue should then be scraped out with curettes bent at various angles as required. Every part of the abscess wall should then be brought into contact with a powerful antiseptic solution, such as corrosive sublimate 1-1000, or chloride of zinc 40 gr. ad. ℥j. An iodoform-glycerine emulsion 10 per cent. strength, may then be introduced, and a bulky antiseptic dressing applied. If the wound is large and likely to give rise to extensive capillary oozing, it would be advisable to pack it with iodoform gauze, which should be removed at the end of 24 hours. The subsequent treatment would consist in thorough irrigations at such intervals as the condition of the wound would suggest.

In dealing with the results of the disease it is necessary to remember that all *bare* bone is not necessarily *dead* bone, and accordingly the part of the bone which perishes should not be removed until its limits are clearly defined.

It is impossible in a paper of this length to deal with the subject in its entirety, and I will close by saying that the hiatus left after removing the dead bone should be treated on general principles, viz., either by the implantation of new living bone by filling with Senn's decalcified bone chips, or with desilicated sponge.

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NOTE the pupil in chloroform anesthesia. When the pupil dilates, the cardiac respiratory centers are beginning to be inhibited.

THE PHONOGRAPH FOR DEAFNESS.

BY DR. MURRAY M'FARLANE, TORONTO.

Late Clinical Asst. Throat, Nose and Ear, N. Y. Polyclinic.

A new method of treatment of deafness, which promises to be of great utility is the use of the phonograph, which can be used as follows: Specially prepared wax cylinders are used, in which depressions have been made at intervals, by means of a stylus, the result of each depression being a sound shock of varying intensity, according to the depth of the mark made, and the number of revolutions made by the cylinder. Thus the sound is intrinsic, and not derived from outside sources. It acts by focussing the rythmic sound shocks upon the membrana tympani; acting as a message to the aural conducting apparatus, breaking down recent adhesions, and is seemingly very beneficial. The writer made a number of experiments last week, and demonstrated to a number of medical gentlemen, the utility of this method of treatment. The Edison Phonograph Co. kindly placing one of their instruments at his disposal, six patients underwent the process, five expressing themselves as being benefited.

Mr. W., otitis med. cat. chronica, of 6 years standing, both ears watch heard; 2 in. right ear; 4 in., left ear; after 15 minutes listening to the phonograph, right ear, watch, 6 in.; left ear, 7 inches. This was without inflation.

Mr. M., O. M. C. acuta, left ear, watch heard, 1 inch., after treatment watch heard 4 inches, quite a marked improvement. In both these cases the Politzer gave but little relief, etc.

The writer feels confident that there is a great future for the phonograph in the treatment of middle ear affections, and will be pleased to communicate directions for preparing cylinders to any medical man who would like to investigate for himself. This communication is purposely brief as the discovery is in the experimental stage as yet.

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THE ODOR OF IODOFORM can be removed from the hands and other parts, it is asserted, by washing thoroughly with linseed-meal water.

Selected Articles.

ULCERS OF THE LEG AND VARICOSE VEINS.

The object of this paper is to call attention to a very simple and successful method of treating ulcers of the leg and varicose veins. It has proved, after an extensive trial, very satisfactory in the relief and cure of that rather difficult class of cases.

This method was suggested by a paper of the late Professor Gamgee, of Birmingham, which appeared in the *Lancet* several years ago, on "The Treatment of Recent Wounds of the Leg by Dry and Infrequent Dressings." In substance, it is an adaption of his method to the treatment of ulcers. It is very simple and comparatively easy of application—in fact so simple, that any intelligent and competent person can use it, if the idea is correctly grasped. The advantage of practice is, however, very great, and in every town of any size, a medical man who would devote some little time and care to become proficient in its application, would obtain considerable practice and be the means of giving great relief to many a wretched sufferer. All the cases reported were treated in the city of Manchester, England, but during the last two years many cases have been treated in Canada and the United States, with even more satisfactory results.

In a short paper like this, it would be quite out of place to give any detailed description of the anatomy of the leg or of the circulation in it. It will be quite enough to notice that in the leg the arterial blood has the force of gravity to help it, and the returning or venous blood has this force to overcome. This is one of the great difficulties in treating diseases of the leg; the other is the injury to the general health ensuing from the enforced rest which is usually taken during their treatment. This injury is most marked in elderly persons inclined to stoutness. In health the disadvantage under which the venous circulation labors is counteracted by the strength of the coatings of the veins and the number of valves placed in them, which cause the contractions of the muscles surrounding the veins to force the blood upward. But when disease and pain occur more blood is carried to the limb by the arteries, and the muscles are used much less freely; the blood in this way overloads and distends the veins, so adding to the existing mischief. In course of time the veins become like India rubber tubing which has been over-stretched and has lost almost all its elasticity.

The method by which the writer has succeeded in many cases in relieving that state of affairs, without requiring any rest in bed or cessation of work, is extremely simple, nevertheless he trusts that on this account alone it will not be rejected as unscientific. Its action is chiefly mechanical, and consists, in brief, of the application of a perfectly flexible, porous, and absorbent bandage in such a way as to restore the venous circulation to its normal state, absorb and disinfect all the discharges, and permit at the same time free and painless exercise. The change produced in the nutrition and healthy action of the leg is like that brought about by good drainage in an unwholesome swamp.

Cause of Ulcers.—The most common predisposing cause of chronic ulcers of the leg is a varicose condition of the veins, but whatever may have been the original cause of an ulcer, in the majority of cases, if not speedily cured, a varicose condition is produced. This fact does not receive the recognition it deserves in the larger works on surgery, but is strongly emphasized by Dr. J. K. Spender, of Bath, in a little book published by him in 1868, in which also the principle of treatment herein recommended is adhered to, though the means adopted differ somewhat. Mr. W. H. Bennet, F.R.C S., Eng., in some very interesting tables lately published by him in the *Lancet*, gives one hundred and seventy-four consecutive cases of varicose veins of the lower extremity under his care at St. George's Hospital. The percentage of chronic ulcers occurring among them was twenty-eight. Other diseases especially predisposing to ulceration, are erysipelas of the leg, phlegmasia dolens or white leg, syphilis, and acute rheumatism. The reason why the first three should create a tendency to ulceration is apparent, but it is very remarkable that twelve out of the last fifty cases herein reported had suffered from acute rheumatism. The first fifty cases of the series were not questioned on this point. It will be conceded that there is no method of treatment known to the general profession which gives much satisfaction. Most of the great writers on surgery treat the subject in a very cursory manner. There are three essential indications to be fulfilled in order to treat an ulcer of the leg with success. First, to restore the circulation to its normal condition; second, to provide for the absorption and disinfection of the discharges; and, third, to enable the patient to take free and painless exercise. The method here described fulfils these three indications almost perfectly.

The materials chiefly used are stockinette cotton bandages, three inches wide, in rolls of six yards each; Gamgee absorbent tissue, absorbent lint, oiled silk, or gutta-percha tissue, and ointments composed as below:

℞.	Vaseline	lb. j.	
	Acid borac. pulv	℥ j.	
	Glycerine	℥ j.	M.

℞.	Vaseline	lb. j.	
	Acid carbolic	ʒ iij.	
	Glycerine	℥ j.	M.

The boracic and carbolic ointments may be used interchangeably, and will be found very useful in the majority of cases. When the surface of the ulcer is gray, and it is sluggish in healing, carbolic lotion 1 in 80 on lint covered with gutta-percha tissue will be found beneficial; and zinc ointment is suitable in eczematous cases, used alternately with the boracic ointment or acetic acid lotion, 1 in 80, on lint under tissue.

Subnitrate of bismuth, dusted on dry, is useful in many cases.

Application of the Bandage and Dressing.—To apply the dressing cut a piece of the Gamgee tissue a little larger than the wound or ulcer, spread over the tissue as thinly as possible some of the ointment thought suitable for the case. The tissue may be split in halves before use, but the gauze side should always be applied to the sore. When there is much discharge two or more thicknesses will be required. The tissue when spread should be laid on the wound, and the first bandage applied as follows: The patient, seated on a seat of ordinary height, should place his foot on a stand of the same height, or on a corner of the chair on which the operator sits, and wherever the wound may be situated the bandaging should be commenced at the foot. The first turn should be made over the centre of the ankle, going under the foot in a figure-of-eight; the second turn should go half an inch higher than the first, again going under the foot, and one turn round the front of the foot close to the root of the toes; the third turn should go half an inch below the first, then under and once round the foot again; the fourth, half an inch over the second, and the fifth, half an inch under the third, each turn going under and round the foot once only for each turn round the ankle, and coming just to the root of the toes. In cases where the ulcer is below the ankle, it is necessary in addition to make two or three turns directly under the heel, coming over the instep in front. The bandage must then be made to ascend the leg by spiral turns of about half an inch each, until the centre of the calf is reached: above the centre the turns should ascend from an inch to an inch and a half each. It is very important to attend to this point, as the bandage exerts all its force at the calf, and if too many turns are put on, the circulation beneath is obstructed. No reverses should be employed. In persons under one hundred and forty pounds weight two rolls of bandage are sufficient; when over one hundred and forty pounds and under one hundred and eighty pounds, three rolls will be required; and when over one hundred and eighty pounds, four rolls. There are six yards in each roll. When more than two rolls are used all but the last should be commenced at the foot; the last roll in every case should be applied from above downward in inverse order to the first. By attending to this, a stocking can be easily drawn over the bandages without disturbing the folds. For this purpose it is well to use a thin cotton or silk stocking, which should only be changed at the time of dressing, the ordinary stocking can be put over it and removed at bedtime.

In applying the bandages the greatest care should be taken to regulate the pressure in such a way as not to cause stagnation of the venous circulation in the foot. This can be done by always applying rather more pressure to the foot than to the leg. The ideal is to have the pressure graduated in such a manner as to be greatest at the foot, and evenly and gradually less in ascending the leg. The arterial circulation should be almost unaffected, but the stasis in the veins completely overcome by the elastic pressure of the bandages. This is a purely mechanical matter, and is governed by the same laws which regulate the pressure of fluids elsewhere. A varicose leg is like an india-rubber tube, full of fluid, which from over-wear or over pressure has begun to stretch and bulge in places, and in such a tube the greatest amount of pressure would be at the lowest portion.

Changing the Dressings.—The dressings should be changed as seldom as possible; three times weekly is about the average number of times required in order to keep the pressure even and the discharges removed. When the discharge is very great it is necessary to change the bandages every day at the beginning of the treatment, lessening the frequency as the leg improves. Some legs hold the bandage in position much better than others. The attendant must use his own judgment. Some do well changed once or twice weekly, others require changing every day. A simple aid to uniformity in putting on the bandages is to make a narrow strip of paper into half inches and lay it on the front of the leg as a guide. If these directions be carefully followed, it will be found easy to reduce almost any kind of swelling in the leg.

Bandaging after the Cure.—It is always better to continue the bandaging for at least six months after an ulcer is healed, and in aged persons for a still longer period. This may safely be left in the hands of patients themselves, after explaining clearly to them the method of application. In cases of varicose veins the bandaging must be continued for a still longer time. Two sets of bandages should be used, so as to permit of one set being washed when required. Care should be taken to direct the party who washes the bandages not to disturb the original folds, and in dressing to draw them out sidewise before rolling; on no account should they be stretched lengthwise.

While patients are under treatment they should not be allowed to remove the bandages themselves. When cured, they should be directed to remove them every night and reapply them every morning. As will be seen by the foregoing description, the three conditions of success spoken of above are almost perfectly fulfilled by this method. The stockinette is wonderfully elastic, and compresses the veins most completely and comfortably. The Gamgee tissue is absorbent to a very high degree, and in conjunction with one of the ointments described disinfects and absorbs all discharges, and the thinness and flexibility of the materials used permit of exercise being taken with perfect freedom.

Illustrative Case.—Mrs. T——, aged forty; housewife, with two children; general health good Ulcer situated just above the inner ankle of the left leg, circular in shape, two inches in diameter, and deep and unhealthy in appearance. She had suffered from it for fifteen years. The leg was much swollen, and the pain "something dreadful." The veins were varicose. The ulcer had been caused by a knock accidentally received. She had twice been an out-patient at Manchester Infirmary, and had been treated by several private medical men. She came under treatment on May 1st, 1884. Two rolls of bandage were used (twelve yards in all) and the ulcer dressed with carbolic ointment and Gamgee tissue as described· The dressing was changed every second day for a week, and afterward every third or fourth day. She experienced immediate relief from all pain as soon as the bandage was applied, and was discharged perfectly well on May 31st, 1884. On making inquiry in April, 1889, she was still perfectly sound, and had never suffered any inconvenience in the interval. No rest of any kind was given, and she did her ordinary work during the treatment.

The medicinal treatment will not be spoken of. Every case must be treated on its own merits. Free exercise should be enjoined and wholesome and nourishing food recommended. It is very important to keep the bowels regular, having a movement at least once each day. Is it safe to heal an ulcer of the leg? Yes, when free exercise is taken during the treatment. In every case treated by myself improvement in the general health took place.

In varicose veins the bandage should be applied as before directed, and will be found on the whole much superior to elastic stockings. In recent wounds of the leg the benefits of this method of dressing are seen to their greatest advantage.

In acute synovitis the equable and constant pressure obtainable in this way often seems to act as if by magic in reducing the swelling and inflammation.

A synopsis of the first hundred cases of ulcers treated was appended to this paper, but is omitted for lack of space. The average period of treatment was about five weeks. Eighty per cent. of the patients were permanently cured, and in the remaining twenty per cent. the pain was relieved, and the swelling removed in almost every case.—W. BREMER, M.D, *in Med. Rev.*

DR. LAUDER BRUNTON ON THE TREATMENT OF PILES AND ALLIED AFFECTIONS.

At a meeting of the Medical Society of London, held on March 7th, Dr. Lauder Brunton read a most interesting and useful paper on piles. We are unable to give the paper *in extenso*, but we are sure our readers will appreciate his remarks on the treatment of this painful and at times most obstinate affection. He said :—

"Turning, now, to the treatment of piles, we may consider, first, how we are to keep the liver in such a condition as to maintain a free supply of blood through it. For this purpose, we should insist on moderation in cases where we have reason to believe that either the food or the stimulants taken are in excess of the wants of the organism. The occasional administration of small doses of a mercurial purgative, followed by a mild saline, tends to keep the liver free and to prevent piles, although one may not know the exact *modus operandi* of the mercury upon the liver. Of course the saline ought not to be too violent, or it will tend to cause local congestion and make matters worse. Aloes bears an evil repute on account of its irritant action upon piles, but its effect depends upon the quantity given; and while a large dose of an aloetic pill will almost of a certainty produce rectal irritation, small doses, such as one-tenth grain of aloin three times a day with each meal, will tend to lessen piles by keeping up a gentle peristaltic action and preventing constipation. My friend, Mr. Archer, tells me that he has used with invariable success half an ounce of castor oil given to begin with, and followed up by half a drachm every morning for a month.

"I have already discussed the prevention of portal congestion from chills, but when it has occurred a useful application is a hot water india-rubber bag, with a plush or flannel covering, put under the back of the neck, and a similar one over the liver. These tend to restore the equilibrium of the circulation and lessen portal congestion.

"Exercise is useful in keeping the liver free, but this exercise must be of a certain kind. As I have already said, the liver is a very spongy organ, the blood pressure within it is very low, and the pressure under which bile is secreted is also very low. Both blood and bile, therefore, tend to stagnate within it, but this stagnation is lessened by the liver being rhythmically squeezed, more or less forcibly, between the diaphragm and abdominal muscles. In a person standing or sitting upright, or lying on either side, this squeezing action is very slight; in a supine posture it is slightly greater. In ordinary walking it is also very slight, but in walking up a hill, and especially in climbing a mountain, the amount of pressure to which the liver is subject is considerable, because the muscles of the abdomen in such exercise are actively contracting, and the movements of the diaphragm during the panting breathing which occurs on exertion are much greater than when a person is quiet. A similar process of squeezing occurs in brisk horse exercise, either trotting or cantering, and thus riding is frequently beneficial for piles, notwithstanding the increased local irritation from contact with the saddle. Another useful exercise is to touch the toes with the fingers, keeping the knees straight, several times every morning.

"A regular action of the bowels is of the utmost importance in preventing piles, because it tends not only to keep the circulation through the liver free, but prevents straining. The different means of securing this regularity of action would require a paper to themselves, but a teaspoonful of compound liquorice powder at night, or confection of senna, either alone or with confection of sulphur or confection of pepper, are perhaps amongst the most widely employed of all the laxatives. No doubt the best times ordinarily for emptying the bowels is after breakfast, but if the piles tend to come down much it is better for the patient to get into the way of emptying the bowels before going to bed, so that he may secure rest in a recumbent position for several hours. Some patients in whom the piles come down easily spend a day of misery if they are obliged to go to the closet in the morning instead of the evening, because the piles tend to remain down all day and worry them.

"The soft unprinted papers which are now commonly sold are a very great improvement upon the ordinary newspapers, but even they sometimes give rise to a good deal of irritation. In cases where piles are very troublesome it is always well for the patient to wash the anus immediately after a motion. It is sometimes impossible for the patient to go from the closet to his bedroom and wash there, and I have found the easiest way of getting over this difficulty is for him to carry to the closet a soft sponge in a small india-rubber bag; an ordinary tobacco pouch is best. If it should be an earth closet, the patient should take the sponge full of water, and, after cleansing the anus gently with paper, he may thoroughly sponge, and then return the sponge to the bag. The anus may then be dried either with the porous paper, or with a small napkin which he carries with him. In the case of a water closet the sponge may be taken dry, and after the closet has been used the plug may be drawn and the sponge dipped in the clean water which then fills the pan and used in the way which I have just mentioned. The patient should also take with him to the closet a small bottle of some preparation of hamamelis and some prepared wool. This should be sheep's wool deprived of its fat and not cotton wool. The wool thus prepared is quite absorbent and takes up the hamamelis readily. It differs from the cotton wool in one important particular, for it forms a kind of felt, which the cotton does not. A small pledget of the wool about the size of a hazel nut should be dipped in the hamamelis and introduced within the anus, and a similar pledget, likewise soaked in the hamamelis, should be introduced so far within the anus that a few fibres of it at least are caught by the sphincter. The external pledget soon becomes felted together into a regular pad, fitting completely to the anus, and being retained by the few fibres caught by the sphincter it will remain there for twenty hours, while a similar pad of cotton wool might not remain as many minutes. This wool pad not only keeps the hamamelis in constant contact with the piles, but also affords a certain amount of mechanical support. In patients suffering from piles we often notice an almost involuntary tendency to sit on the corner of a table or on the arm of a chair, or to put the hand behind and press upon the anus from time to time; but the woollen pad, by affording a constant support, tends to lessen the necessity for pressure in any of these ways. Where the piles are chiefly internal the hamamelis may be applied in the dose of half a drachm to a drachm, either diluted with water, or, as is sometimes preferable, undiluted, by injecting it within the anus by means of a glycerine syringe. The success of this treatment in stopping hæmorrhage from piles is really extraordinary; within a week I have stopped the hæmorrhage from piles which have been bleeding so profusely that a colleague thought that an operation would be necessary. But not only does the hamamelis stop hæmorrhage, it lessens the uncomfortable weight and aching pain which so frequently accompany piles, especially when they do not bleed; and it will even greatly lessen or remove the pain which occurs in piles when they become inflamed. I have tried various preparations of hamamelis, but I have not found either the tincture or the local extract, both of which are to be found amongst the recent additions to the *Pharmacopœia*, nearly so satisfactory as some of the proprietary preparations.

"The patient requires to be carefully instructed in the mode of using it, otherwise disappointment may ensue. Some time ago a lady who was passing through London on her way to the Continent was seized with a sharp attack of piles. I was asked to see her at an hotel, but, not being able to go for a couple of hours, I hastily wrote down a prescription for hamamelis and gave it to the maid with, as I thought, definite instructions how to apply it. On going to the lady two hours afterwards, I found that she had used the whole bottle, but with no relief whatever; nor was this to be wondered at, for the piles were internal, and the hamamelis had only been used externally. So satisfactory have I found hamamelis, that I do not now often employ ointments.

"In obstinate cases of piles, great relief is afforded by the anal pad. The simplest is one of india-rubber with elastic straps to hold it in its place, but it does not give, I think, quite the same relief as one in which the pad is pressed against the anus by a spring attached to a metal girdle which passes round the loins.

"Before concluding this paper, I may mention another affection which frequently goes along with the piles, and is most annoying, namely, puritus and eczema round the anus. Both of these affections may be lessened by a simple remedy—eau de cologne applied to the itching surface with a small sponge or a pad of cotton wool. If the skin be at all tender, undiluted eau de cologne gives rise to intense burning pain, but this may be prevented by diluting the spirit before application. The diluted spirit does not have such a strong and permanent action in lessening the itching as the pure spirit, and where the itching is at all great, the pure spirit may be used, notwithstanding the pain it causes, for it converts the intolerable itching into a severe smart, and this may be relieved by diligently fanning the part till the spirit evaporates."—*Hosp. Gaz.*

THE PATHOLOGY OF PNEUMONIA.

The pathology of pneumonia is one of the *quæstiones vexatæ* of medicine. The disease has so many points of resemblance, on the one hand, to the specific fevers, and on the other, to acute pulmonary affections, that the determination of its true pathological relations is a most difficult and complex problem. The question at issue becomes still more interesting when we remember that not only has pneumonia been a puzzle to the pathologist, but its treatment has been one of the great controversies of therapeutics. We naturally turn for light on these subjects to such a work as the exhaustive "Treatise on Diseases of the Lungs and Pleura," by the late Dr. Wilson Fox. "Two opposite theories," the author informs us, "have been advanced regarding the origin of pneumonia, both of which are supported by certain facts and opposed by others—(1) That pneumonia is a 'specific' fever, of which the disease in the lungs is only a local effect; and (2) that it is a purely local disease, of which the pyrexial and other phenomena observed are only the immediate consequences." In favor of the first view are the following facts—(*a*) negatively, the absence in a large proportion of cases of any discoverable cause likely to excite inflammation of the lungs, and (*b*) positively, the suddenness of the onset of the disease, its well-defined course, its occasional epidemic and contagious character, the presence of bacteria in the blood, and the frequent appearance of a cutaneous affection (herpes), possibly analogous to the rash of the exanthemata. A point corroborative of the above is the well-known want of synchronism between the clinical progress of the case and the pulmonary condition. Thus, it is very common for the temperature to fall to normal and all the symptoms to abate, while the physical signs of pulmonary consolidation remain practically unchanged. Less frequently, but still not very rarely, the consolidation may show signs of resolution before there has been any abatement of the clinical symptoms."

The above evidence seems strong, and if we confined our attention to it we might conclude with some confidence that pneumonia must take its place among "specific" diseases. But, unfortunately, there are some points of great weight that tell against this view. Thus pneumonia is only very exceptionally epidemic, and its contagiousness, although held by some good observers, is still doubtful. Again, the influence of season is very apparent, the preponderance of pneumonia falling in the months from January to May. It might be urged, in reply to this, that just as pneumonia shows a preference for the late winter and early spring, so typhoid fever inclines to occur as an autumnul disease. But it seems impossible to resist the evidence that the frequency of pneumonia is much influenced not only by season, but by weather, cold winds, and sudden changes of temperature predisposing to it. In this regard, pneumonia shows an affinity with pulmonary disease and other affections that are admittedly due to "chill." Then, again, while there is often a want of synchronism between the physical signs and the symptoms of pneumonia, we have to recognize, on the other hand, such a fact as the greatly increased mortality which attends bilateral, as opposed to unilateral, pneumonia.

In so far as treatment throws any light on this subject there are facts on both sides. The general stimulant treatment of pneumonia, now almost universally adopted, hardly differs essentially from the treatment of the continued fevers, and is obviously adapted rather to the theory that pneumonia is a "specific" disease than to the belief that it is a local inflammation. On the other hand, local applications to the chest in the form of poultices, icebags, etc., have enjoyed much favor, and have been believed by some authorities to influence the progress of the disease. Stimulating expectorants, again, generally play a considerable part in the therapeutics of pneumonia. Summing up the subject, Wilson Fox wrote: "The theory of a 'specific' cause can scarcely be maintained for pneumonia in the same sense as that in which the term is applied for the contagious pyrexial diseases. The causes of pneumonia are manifold, and the disease may originate under such diverse conditions that it seems impossible to attribute it to any single blood poison. On the other hand, the most probable hypothesis to explain its origin is that of an altered composition of, the exstence of some morbid material in, the blood, which, from its special qualities, may affect a particular organ, or, as is more probable, may, under local predisposing causes, excite inflammation in that part of the system which in any given individual is the most liable to suffer, as a *locus minoris resistentiæ*." We have no knowledge of the nature of the changes in the blood that predispose to pneumonia. The excess of fibrine that has been described has been shown by Virchow to be the consequence, rather than the cause, of the pulmonary inflammation. In some cases, no doubt, pneumonia is due to septicæmia, but this is not at all probable of the typical acute disease.

It is rather a curious circumstance that while theoretical considerations and clinical evidence seem at present inadequate to fix definitely the pathological relations of pneumonia, the response of pathology and bacteriology is also somewhat equivocal. It is true that the researches of the bacteriologist of late years have considerably advanced our knowledge of this part of the subject. From them we learn that the microbe most constantly present in pneumonic exudation, and in that of the inflammatory affections with which pneumonia is often complicated, is the diplococcus discovered by Frænkel and Weichselbaum; whereas Friedländer's bacillus, like some other microbes occasionally found in pneumonia, is of exceptional occurrence. Nor must the remarkable investigation of the two Klemperers upon the toxines of the first-named organism be lost sight of, as affording additional proof of the specificity of the disease. Nevertheless, when all these contributions to knowledge are collated, it would still seem that much remains to be done before we are in a position to conclude that bacteriology has said its last word regarding pneumonia.

According to Wilson Fox, "the disorder which, on a lesser scale, presents the greatest analogy with acute pneumonia is perhaps acute tonsillitis, where we have the same short initial stage, a similar intensity of rigor and prostration, a similar sudden invasion of pyrexia, and a similar rapid decline of this before the local inflammation has shown any signs of abatement. In tonsillitis, also, we have frequently an equal difficulty with pneumonia in verifying a distinct cause, and a certain amount of evidence at least exists in the case of the so-called 'hospital sore-throat,' that it may also be produced by other poisons than those originating within the system from the impeded excercise of the function of the skin." It will thus be seen that the pathology of pneumonia remains a question *sub judice*, but that the best authorities incline more and more to the specific theory of its origin.—ED. IN *Lancet*.

ANGINA PECTORIS.

The sufferer from angina pectoris is without warning attacked by a sense of oppression in the precordial region, which is rapidly followed by a well-defined, severe pain, radiating over the left chest, sometimes to the right as well, and from the chest to the left shoulder, whence it extends into the arm and rarely into the forearm, and accompanied by a sense of suffocation. The pain may also shoot up the neck. The arm seems to be of enormous weight, and there is severe pain upon movement. No position in which it may be placed gives relief, while there is a disposition to relax the affected side by an inclination of the body. The face is pale, the features expressive of intense anguish. Respiration is restrained, for movement of the chest wall intensifies the agony; and the heart is either slowed or beats irregularly. The patient attempts to assume a position that will relax the muscles of the thorax and arm, and may either take a sitting or standing posture, being careful, however, to secure support.

Patients are not talkative during a paroxysm, every inspiration required in the act of conversation being accompanied by an acute pang. All movements or jars increase suffering and there is often a strange sensation as of approaching death.

These symptoms, though passing rapidly, sometimes not lasting more than a few moments, may be likened to the slow and easy motion of a train of cars as it leaves the station, but at each second adding to its momentum and intensity, until it is rushing along at reckless speed, pounding, racking, and tearing along, until the patient dreads the next move and fears instant destruction—then, by the same imperceptible change there is a gliding, easy slackening of signs, and soon the countenance itself clears a little, and with a sigh of relief he feels well. Such is the course of symptoms in a well-developed paroxysm. The symptoms may vary; the arm may not suffer; the paroxysm may be so mild as to be almost disregarded.

What is it? For years that question has been asked, and as yet it is practically unanswered. The diversity of opinion as to the nature of the affection is illustrated by the number of names that have been given it, twenty-four in all, based upon phenomena that seemed to be characteristic. The common name, angina pectoris, is as unmeaning as any.

From a clinical standpoint there seems but little if any advantage in considering the affection under the two forms, true angina pectoris (in which there is disease of the heart) and false angina (in which there is no recognized heart-lesion). I might say that no clinical distinction can be determined; and the pathology of the disorder is at best uncertain. It is true that in some cases in which death has occurred, in one, ossified or obliterated coronary arteries have been found; in another fatty degeneration of the heart; and in another, some other morbid condition; but similar lesions are found in cases in which there had never been attacks of angina. The affection has been considered as a neuralgia, but pure and simple neuralgia it cannot be; for while neuralgia is strictly a nerve pain (and pain enough there is in angina), the pain is so different from the indescribable, agonizing sensations of angina pectoris that the latter must be looked upon as a neurosis; and here we have a clear, decided statement that we are lost. So we accept the neuroses as the category into which angina pectoris falls, and qualify it further by the prefix vasomotor. Some writers prefer to call the disorder angina pectoris when there is recognized organic heart-disease, but under all other circumstances to call it simply a neurosis. This seems like a distinction without a difference, for with or without heart-trouble the affection is a neurosis, the heart-trouble having no clinical significance.

The pallid skin indicative of disturbed circulation, the slowed or irregular heart's action, accompanied by pain in the thoracic respiratory muscles, seem to point more surely to a centrally impeded or deranged innervation affecting the capillaries than to organic heart-disease. With this conception we can understand why the symptomatic phenomena may be irregularly produced, one part affected and another not, accordingly as a greater or smaller number of vasomotor nerve-centers is disturbed. We also find that angina pectoris may result from organic or functional irritation of the terminal filaments of the pneumogastric nerve supplying the heart, lungs, liver, stomach, or intestines, the sense-impressions being conveyed to its nucleus in the medulla and communicated to the vasomotor nuclei. The vasomotor centres being distributed throughout the cord, as well as in the medulla, are irritated, whether from nutritive defect or otherwise, the direct cause being conjectural; the capillaries of those parts or organs from which the disturbance emanates are contracted; the blood-pressure is increased and the circulation is diminished, as indicated by the visible signs. The disturbance of circulation cries for relief, and the excruciating pain becomes a landmark for the location of the organs involved, and furnishes indications for treatment during the paroxysm, as well as in the intervals between paroxysms.

The means at hand for treating the spasm can now be plainly indicated: Ether, chloroform, morphine hypodermatically, and amyl nitrite. Of these, morphine and the nitrite are pre-eminently the best. Of the latter, from two to five drops may be given by inhalation. Amyl nitrite is rapid in action, stimulating the vaso-dilator centers and causing a flush to appear. With the re-establishment of the capillary equilibrium, the symptoms of the paroxysm subside. It must, however, be remembered, that the nitrite affects the entire vaso-dilator system (especially that controlling the head), and by increasing the circulation in other parts, arm and extremities, sometimes causes a disagreeable sensation of fulness. It is therefore a remedy that must be used with circumspection. If confided to the patient, only a few doses should be prescribed and these with written cautions.

Many of the attacks are so short that the paroxysm may pass before medicinal treatment can be employed. As the spasms are, sooner or later, likely to recur, the case should be under persistent and prolonged treatment during the interval. Should the attack be concurrent with cardiac lesions these should receive due attention and be treated as they would under other conditions; nevertheless a general course of nerve-tonics and such other judicious medication as may be called for will prove satisfactory both to patient and practitioner. It is especially in the form designated false angina that we may hope for some permanent good from treatment. This condition is mostly found in those of neurotic tendencies, of rapid growth, poorly nourished, or suffering from gastralgia, indigestion, hyperæmia and torpidity of the liver. Let us not ignore these cases, but remember that the nerve is simply the means by which the existence of peripheral disorder is communicated to the central organ—the brain.

For the treatment during the interval, arsenic holds a position to the general condition similar to that of amyl nitrite during the paroxysm. For all neuroses, in fact whenever a nerve-tonic is called for, arsenic is a remarkable remedy; but as in the case of the nitrite, it must be used discriminatingly. In some unknown way, arsenic greatly assists the nutritive processes. According to circumstances, iron, nux vomica and the phosphates, given alternately or with arsenic, may be found necessary.—Dr. Bixby, in *Med. Press.*

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☞ THE next International Congress for the study of the question of the abuse of alochol will be held at The Hague in September.

EIGHT CASES OF FISSURE AND ULCER OF THE RECTUM, WITH REMARKS.

Since Feburary 10th, 1891, I have seen eight well-marked cases of fissure and ulcer of the rectum. And yet, in a practice of fourteen years, I can recall only eight or ten cases—previous to the above-mentioned eight—which I have diagnosed and treated as such. I am now perfectly satisfied, however, that during this period I have failed many times to discover the rectal lesion—one or the other, or both, as the cases may have been, for two reasons:

1. Unfortunately, I so often accepted the patient's diagnosis of his or her case, and directed a treatment for hemorrhoids.
2. When I did examine, it was not in a thorough and systematic manner, and I failed to discover the real cause of suffering. Not a few physicians could give the same reasons, as these eight cases will show.

There is very little literature on this subject in the books on surgery. I presume some works devoted especially to diseases of the rectum, treat the subject more fully; though, as I own but one little treatise on the subject, I am not prepared to say how much importance authors give it.

The general impression seems to be that rectal fissure and ulcer is so simple a matter, and the cure so easily affected (which is really true) that we fail to recognize how it wears out the patient's health and strength in a remarkable manner. The constant pain and irritation to the nervous system are more than most persons can endure.

Most of the eight cases I am about to report were non-residents of Norfolk. Two came to me so ill, and suffering such intense pain, that they felt quite sure that they had cancer of the uterus, when in reality they had only a small ulcer of the rectum. The husband of one of these (Mrs. C., aged 44, Nansemond Co.), had been informed by her family doctor that she had cancer of the cervix. I found only a simple erosion of cervix. Both left "The Retreat" entirely relieved of rectal pains, and are now in excellent health, one having gained over twenty pounds in weight.

A third case, Miss W., aged twenty-four, through delicacy of feeling, had for over three years concealed her "*uterine* disease" from her attending physician. A careful examination of uterus twice (second time under chloroform), satisfied me that the uterus and appendages were normal. On digital examination of the rectum, I at once outlined two polypi—one an inch long, the other not quite so long; then with a speculum I discovered, dorsally, a club-shaped fissure or ulcer, with its apex extending up to the attachment of the longest polypus, which dangled and fitted perfectly in the fissure when the sphinchter was closed. This fissure, like some of the others, had a grayish-colored floor, with well-defined hard edges. The young lady had many anomalous symptoms, such as pain and numbness radiating down the leg to her feet; retention of urine; almost constant pain in the back and loins, extending from the time of one defecation to the next. For weeks she had been postponing her bowel actions as long as possible, on account of the intense agony she always experienced when the desiccated and hardened fæces passed over this fissue. Her relatives felt sure she was a hopeless invalid. Her mother came with her to "The Retreat," and when I assured her there was nothing like paralysis, as her doctor had suggested, and I felt quite confident that her daughter could be entirely relieved, she was very skeptical. She left in two weeks entirely cured, and now weighs over 140 pounds; is in perfect health.

The next case was a gentleman, a Methodist minister, who had been a great sufferer for ten years. He stated he had "*blind piles,*" and that over a dozen doctors had treated him. A close examination of his rectum (the first in ten years), revealed a very insignificant but deep crack situated at the anal orifice over the external sphincter, and involving the skin. I also discovered a small, three quarter inch polypus high up, which gave no pain, though I snipped it off. This patient described his suffering upon defecation as agonizing. It is very evident why such an insignificant little fissure could so prostrate him and produce such intolerable suffering. It was because of the great mobility of the external sphincter, and because the rectum and anus are abundantly supplied with branches from the sacral and pubic plexus of nerves. The location, therefore, and not the size of a fissure or ulcer, will determine the amount of suffering of a patient. Hence the importance of *close, ocular* examination of the anus, and *never* be content to accept his "*blind pile*" diagnosis and treat it.

My patient was for two years without an examination. I have within the past few days received a letter from this gentleman, from Nansemond Co., consulting me in regard to his *new* wife's *front* passage, and in this letter he states, "My back passage is in perfect order since the operation."

The fifth case was a noted "Madam," who keeps a house of prostitution in this city. She came to be treated for uterine trouble. She said several physicians here and two in Baltimore had treated her womb. I found a retroverted uterus, chronic cystitis and spasmodic pains in micturition. I thought these sufficient to account for her haggard and wasted condition. I sent her to "The Retreat," and not for ten days after, seeing no improvement, did it occur to me that I had failed to examine the rectum. When I did examine it, I found a circular ulcer about one inch above the internal sphincter, as large as a silver quarter. I am quite sure the muscular fibers were laid bare in the ulcer. It was exceedingly irritable. I am also sure this was a syphilitic ulcer, as it made but little progress until after she was placed upon iodide of potash and mercury. She left "The Retreat" in four weeks, not entirely cured, but greatly relieved. She comes to my office once a week now for treatment.

As the treatment was different in this case from all others, I will state what I did. I made application of nearly everything I could think of —nitrate of silver, carbolic acid, sugar-of-lead, etc. But repeated curettings did more to break down the well-defined, almost horny edges, than anything else I did. Instead of a twenty-five-cent size ulcer she now has a contracted cicatricial spot, not entirely healed, but healing slowly, and she thinks she is almost well.

I might state just here, that over a month before I saw this patient, a prominent steamboat captain, who has his headquarters in Norfolk, came to consult me about a "terrible case of piles." I found no hæmorrhoids, but the largest fringed margin of the anus I ever saw, and between the external and internal sphincters, an ulcer, if anything larger than the woman's above mentioned. After informing him of his serious condition, and the long time he would propably have to remain quiet, he became alarmed and ran away from me, first to Richmond; and not being benefited there to Dr. Kelsey, of New York. His brother-in-law told me last week he had spent $1,500, and while greatly benefited and now at home, he was not entirely relieved. I told his brother-in-law before he left me my opinion was that it was a syphilitic ulcer. Dr. Kelsey confirmed this opinion.

This was one of the eight cases of rectal ulcers.

The other two cases were fissures. One, a Baptist minister, who had a polypus dangling in the fissure. He had been treated for several years for "blind piles;" no examination had ever been made.

The eighth, and last case, was the wife of a prominent merchant of the city, who had been treated for more than two years by a homœopathic with electricity and pessaries for uterine trouble. I found no uterine disease. We had never examined the rectum. It was only necessary in this instance to gently open the anus with my thumb and index finger to see the fissure plainly. When I told her to bear down the pain was so great it would throw the anus into a state of alternate contraction and relaxation. She recognized at once, as I did, that there was her trouble.

Treatment.—There is no operation in all surgery so simple as the one for the almost certain cure of fissure. The ulcer is not so easily relieved

If the edges of the fissure are well defined and hard. I first trim them down with scissors curved on the flat. Now, as to the incision. If it is a case of long standing, and the sides and the floor of the fissure are of a grayish color, and the muscle beneath irritated and hypertrophied, nothing short of complete division of the external sphincter, and then dilatation with the thumbs, obliterase the fissure. I failed to relieve my first cases years ago, because I was too timid, and dilated only, or merely scratched through the fissure with the knife. If only a portion of the fibres of the sphincter are divided, there is danger of too rapid union before the fissure heals, and you may have your work to do over—that is, if the patient will allow you. If you fail to relieve at the first operation, they are apt to run away from you to a specialist.

Six of these cases were entirely cured and remained so. Not one had any incontinence of fæces. Of course the incision should be made with a steady hand, and at right angles to the muscular fibers. Such an incision will always heal (except in a tubercular patient), with a nice, narrow scar.

The next most important point is to *compel* the patient to keep the bed until the wound completely heals ; for if he gets out too early, the wound may not close, or far worse unhealthy ulceration follow, which will be much harder to cure than the fissure. I place a small piece of fine lamb's wool (not cotton), in the cut for twenty-four hours only. I contine the bowels for three or four days after the operation, when I introduce a suppository of a grain of aqueous extract of opium well up in the rectum, to relieve the throbbing.

My only excuse for reading this little imperfect paper before you, gentlemen, is the hope that it may cause us to examine the rectum oftener and more carefully in the future, and not be content with the diagnosis of this patient, who comes with the statment that he has blind piles and wishes a prescription, as several of these eight told me, and had been telling other doctors for years.

If I learned nothing else from Bantock, of London, and Martin, of Berlin, they showed one the importance of examining the rectum more frequently and systematically than I ever done before.—Lankford, *Va. Med. Monthly.*

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THE TREATMENT OF SCIATIC NEURITIS BY THE LOCAL ABSTRACTION OF BLOOD.

No physician can appreciate the excruciating pain of a severe attack of sciatica unless he has suffered himself, nor can he feel how grateful the poor sufferer feels for prompt relief unless he has had such relief himself. Therefore, those remedies which give prompt relief in well-selected cases should be known and used by the practitioner. I do not desire to go into the pathology of the disease, except to say that I believe the great majority of cases of sciatica are due to inflammation of the nerve-sheath, or the nerve itself, and that rheumatism, gout, syphilis, anæmia, etc., have very little to do as factors in the causation of the disease.

The great majority of cases that have come under my observation were healthy males, above the age of twenty-five years, and inclined to corpulency. In nearly every case I have traced the attack either to a direct injury or taking cold, most frequently the former, the most frequent injury being strain or over-stretching of the nerve, by lifting heavy weights from the ground, or remaining in a stooping position, where the nerve is kept continually on the stretch, besides being inordinately pressed on by the overlying muscles. The inflammation may involve a considerable extent of the nerve, as shown by the extreme tenderness on pressure over its course down the thigh. At times it is entirely confined within the pelvis, and I have good reasons for believing that the inflammation may affect any one of the individual nerves composing the great sciatic. Believing that the reduction of the inflammation in the nerve is the quickest way to overcome the disease, I have acted on this principle for nearly twenty years, by using one of the retired methods of treatment,—viz., wet-cupping,—the first subject being myself. I will give a couple of cases from the many I have treated by cupping, which will illustrate its beneficial effects.

CASE I.—This case was myself. In 1872, when I was 26 years of age and in robust health, I rode nearly night and day. My vehicle was a light two-wheeled sulky, which had the seat so much tilted back that I had to lean forward very much, thus keeping the sciatic nerves on the stretch all the time. Besides, there was a wire-railing around the seat just high enough to strike the sciatic nerve a little below where it passes out of the pelvis. This soon had the undesired affect of producing the severest sciatic neuritis imaginable. The pain was principally in the lower lumbar region and the upper third of the thigh. The nerve was extremely tender even to light pressure from where it issues through the great sciatic notch to the junction of the upper and middle third of the thigh. For four weeks nearly every known method of treatment was tried, with but temporary or no benefit. I suffered horribly unless well under the influence of morphine or brandy. Believing in the inflammatory nature of the disease, I had my brother apply fourteen wet cups over the lower lumbar region, on the hip and down the thigh over the course of the nerve. As the blood began to flow I began to feel easier, and, to make a long story short, I suffered no more pain, and took no more morphine or brandy. I stayed a week in bed, got up, and went to the agrings to get away from business and recuperate my strength.

CASE II.—Mr. C., a Frenchman, aged 52 ; has always been very healthy. He eats a great deal of meat and drinks liberally of wine, and has accumulated more adipose tissue than is good for him, weighing two hundred and ten pounds. About December 1st, 1891, he handled a considerable amount of grain in bags and sowed grain for two days, which started a pain in his back and hip. He thinks he also took cold while at work. The pain gradually grew worse. Domestic remedies were tried for rheumatism, and a gout pill was tried. December 20th he was taken suddenly worse, suffering excruciating pain, and his son then came for me. I found him on a "pallet" on the floor, before the fireplace, yelling from pain. The pain was located in the posterior part of the hip, down the thigh for twelve or fourteen inches, and in the lower half of the outside of the leg and foot. The nerve was extremely tender to pressure in its upper part, but nowhere else did pressure elicit any tenderness. I gave him a hypodermic injection of morphine, $\frac{3}{8}$ grain, and atropine, $\frac{1}{80}$ grain. Not having eased him in an hour, I gave him $\frac{1}{4}$ grain. and in another hour another $\frac{1}{4}$ grain. Besides, I applied several dry cups. I left 5/8 grain of morphine, all I had, to be given if pain returned. This was given during the night.

I returned next morning at ten, and found Mr. C. suffering greatly again. I had sharpened my scarifier, and got ready to abstract blood. Having no regular cupping-glasses, I used small tumblers and wine-glasses I commenced below the crest of the ilium, and followed the sciatic down the posterior part of the thigh, applying six small tumblers and two wine-glasses, and on the calf I applied one large and one smaller glass.

After dry cupping for five or six minutes, distending and paralyzing the capillaries, I scarified deeply, and succeeded in drawing about ten ounces of blood. I then wrapped my patient up in thick woyllen blankets, and gave him three ounces of whiskey, and left him for an hour. As in my own case, he began to get ease as soon as the blood began to flow, and when I got through cupping, he felt only a slight pain in the outside of the foot. When I returned he was enjoying his pipe and was as happy as could be. I ordered him to keep between blankets, not to move for anything, and to use a bed-pan when his bowels moved, so as not to put the nerve on the stretch in sitting on the ordinary chamber. I also gave him the following prescription :

℞.—Extract. gelsem. fluid., . . .	fʒii.
Potass. iodidi, ...	ʒiii.
Potass. acetatis.	ʒvi.
Aquæ, q.s. ad.	℥vi.—M.

Sig.—Two teaspoonfuls four times a day in half a glass of water.

He was kept a week in bed, and then allowed to get up. He suffered from some pain on the outside of the ankle for three days after cupping. His wife applied mustard, which was left on till it produced some vesication. This removed the pain; since then there has been no more pain.

I have been induced to write this article for three reasons,—first, I know of no standard work which says a word about this method, and I have not seen anything concerning it in any of the journals which I have taken for twenty years; second, in well-selected cases, and taken before permanent pathological changes occur, I believe there is no remedy that will act so quickly both to relieve the patient and to bring about so rapidly a subsidence in the inflammatory process; and, thirdly, it is the most rational treatment and the most prompt remedy we have in the purely inflammatory types of the disease. When one cupping does not have the desired effect, I do not hesitate to repeat it once or even twice. The patient should be kept in bed, between blankets, and perspiration encouraged. The limb should be kept absolutely quiet, but I do not believe in the straight splint. I have suffered many times with the disease since 1872, but never very severely, and my experience is that the easiest position of the limb is to have the thigh slightly and the leg considerably flexed. Under these circumstances the patient can lie on his back or either side, which is a great comfort to him. The use of adjuvants may be necessary or advisable, such as circumstances may suggest. I would especially advise the use of morphine and atropine for a few days if there is any remaining pain after cupping.

Before discharging the patient he should be fully advised to be careful in the future not to strain the sciatic or expose himself to "catching cold."—Dr. Gundrum, in *Therap. Gaz.*

PRACTICAL TREATMENT OF ECZEMA.

A long experience teaches me that the more strictly I conform in the treatment of eczema to the principle that the disease is of parasitic and infectious origin and nature the more successful will be the results of my thereapeutic agents. Mere blandness of character of local remedies, while it may tend to lessen pruritus, exerts but little power as a curative means.

This is equally true of local remedies designed to lessen irritation and inflammation. We will find that notwithstanding the industrious use of this class of agents the disease is not lessened or cured, but that there is something back of simple irritation or inflammation, some specific influence in operation, that refuses to yield to our simple remedies. Just as in the case of syphilis, we may give all kinds of simple remedies, while the march of the disease continues on until we adopt the specific antidotes, when the infection immediately succumbs. Thus I regard eczema as a disease arising from specific parasitic infectious causes, and not a simple irritation or inflammation that can arise from any passing irritating influence.

Furthermore, I am impressed with the conviction that this specific parasitic cause must be destroyed by appropriate antidotes. There is a very large group of anti-parasitic agents in our materia medica. Among those for local purposes are sulphur and its compounds; coal and wood-tar and their numerous derivatives; mercury, iodine, boracic acid, bromine, etc.

In relation to prophylaxis, I am convinced that the leading hygienic measures are absolutely necessary to the prevention of the extension of the disease. These are isolation of the infected persons and cleaniness. I have so often seen the spread and radiation of the disease from a central point of infection that I cannot doubt its contagious character.

During the recent war inveterate eczema was exceedingly prevalent in the Confederate Army. When a case of eczema came into a tent or company of soldiers, that other cases would follow was almost a certainty. Then again, when a soldier would return home and occupy the same bed with his wife, his brother, or a friend, the companion would almost surely contract the disease.

In the past year or two eczema has been somewhat prevalent in this community. A child belonging to a family in this town associated with another who had the disease. The child contracted eczema, went home and imparted the infection to two other children and the father. These are only a few instances given as evidence of the contagiousness of eczema.

Impressed with this idea, I believe that isolation and cleanliness are the chief prophylactics and that anti-parasitic agents are the most efficient curative remedies. In the acute stages of eczema I am in the habit of ordering the skin to bathed at least twice a day with a lotion composed of sodii hyposulphit. ℥ i, sodii borat ℥pss, aquæ ℥ xij. This is a good anti-parasitic and anti-pruritic. In these early stages I begin the treatment by a moderate course of mercurials, grain j of hydrarg. chlor. mit., and an equal quantity of blue mass, until the secretions of the alimentary canal are well established. Then an alkaline course, consisting of liq. potas. citratis ℥ ss, potas. bicarb. ʒ ss, after each meal. These remedies in a certain proportion of cases will result in subduing the disease in the early stages, but not in all.

In inveterate eczema of the scalp a different treatment is necessary. After experimenting with a variety of local agents, I have found the following lotion by far the most certain:

℞—Ol. ricini,	f℥iv.
Bay rum,	f℥ij.
Acid salicyl.	ʒij.
Resorcine,	ʒi.
Quinin. sulphatiæ,	grs. x.

This very active parasiticide is to be applied over the scalp night and morning and rubbed into the skin. I believe that perseverance in the use of this remedy will not only relieve most cases of of this kind but will promote the growth of the hair.

Then, again, in the advanced stages of inveterate general eczema, a modification of treatment becomes necessary. The chief internal remedial agents in this class of cases are arsenic, sulphur in some form, iron, and iodine; the sulphide of arsenic, $\frac{1}{100}$ grain, three times a day, or the sulphide of calcium, 1 grain, three times a day. But I usually precede these medicaments with sulphur sublimat, ʒ ss, potassii bitart., ʒ ss, divided in chart No. x; one after meals. I feel sure that sulphur is one of the best of germicides and that the system should be saturated with the agent.

In chronic eczema, when the general health is below par, and there is a tendency to anæmia, the tinct. ferri chlor., in appropriate doses, and Fowler's solution, will be of service.

In one of the most inveterate cases of eczema that I ever saw, of the face, in an adult, a teaspoonful of the syrup of hydriodic acid, three times a day, with local treatment, eradicated the disease. The local agents in these inveterate cases that have given me the most uniform satisfaction compose the following combination:

℞—Lanoline,	℥j.
Albolene,	℥j.
Sulphur sublim.	ʒij.
Aristol,	ʒij.
Ungt. picis liq.,	ʒij.

The faithful application of this ointment night and morning has served in my practice in the past few years to cure more cases of inveterate eczema than any other local remedy.

In treating parasitic disease of the skin, our germicide agents often destroy the parasite only, and do not reach the ova or germ itself. This explains why we so often relieve the local affection temporarily, apparently curing it, and after suspension of treatment the disease returns. To eradicate the disease, our agents must kill the ova as well as the parasite.

Itching is one of the most annoying features of eczema. This symptom is one of the most common results of parasitic action on the skin. The bite of the innumerable varieties of fleas, of the mosquito, of the gnat, of the flea, of the numerous species of insectile parasites that infest and attack the human skin, and the movements of minute creatures that imbed themselves in the substance of the skin, as the acarus, all produce the sensation of itching. It is not the simple penetration of the skin that causes itching as any sharp instrument that penetrates, as the needle or pin, does not produce itching, but pain. It is the irritating poisonous matter deposited by the insect that acts on the nerves of the cutis vera.

We can with equal reason assume that the deposit of the microbic organisms causing parasitic disease of the skin, as eczema and analogous affections, cause the itching peculiar to these diseases; and the best anti-parasitics will be found in the germicides to destroy the parasites. For instance, in the case of the common acarus we may use all the anti-parasitics possible without effect until the insect is destroyed by the appropriate germicides. It may be that certain parasites or microbes are only susceptible to the destructive action of certain agents. Sulphur will destroy certain species; mercury another; arsenic, iodine, resorcine, carbolic acid, salicylic acid, naphthalene, others.

The germicidal line of treatment in my experience, is the only method that gives permanent success. But there is an important principle involved, even in this, that is necessary to success, and that is a firm and steady perseverance in the application of our therapeutic measures. The successful treatment of inveterate eczema requires all the firmness and perseverance of our character to accomplish it.—Bedford Brown, M.D., *in Maryland Med. Jour.*

ON THE MEDICAL TREATMENT OF CYSTITIS.

Acute cystitis is far less commonly met by the physician than the chronic form, while its treatment is far simpler, and, I may add, more satisfactory, at least so far as the removal of the acute symptoms is concerned. Rest in bed is a primary and essential condition. Leeches to the perineum should be applied more frequently than they are. A poultice to this same region and over the abdominal region is always useful, while a brisk saline cathartic should never be omitted.

As the feverish state which always accompanies cystitis is more or less constantly associated with a scanty urine, concentrated and irritating to the inflamed mucous membrane, it is desirable at once to increase the secretion, and thus dilute it. Copious libations of pure water, to which the citrate or acetate of potassium is added, in 15 to 20-grain doses for an adult, should be allowed. The ordinary spirits of nitric ether in 2-drachm doses every two hours is an admirable adjuvant, and may be combined with the officinal liquor potassii citratis, which contains about 20 grains of citrate of potassium to the half ounce. Formerly the mucilage of flaxseed or flaxseed tea was much used as a diluent menstruum for the diuretic alkalies indicated, but I am doubtful whether it is any more efficient than a like quantity of water.

Where there is much pain and straining, as is often the case, especially where cantharides is the cause of the inflammation, opium is indispensable, always in the shape of a suppository, half a grain to a grain of the extract being thus administered, or a proportionate amount of morphine. Iced water injections into the rectum, or pieces of ice similarly applied, are very efficient in allaying the pain and irritation where additional measures are needed.

The successful treatment of chronic cystitis is a much more difficult task for three evident reasons: (1) the constant presence in the bladder of the urine with its irritating qualities, especially to an inflamed mucous membrane; (2) the difficulty in getting remedies to reach the inflamed surface; and (3) the pent-up inflammatory products, which in their decomposition often make the urine still more irritating by exciting in it ammoniacal changes.

1st. The irritating qualities of the urine may be diminished by the use of diluents, as already recommended in the treatment of acute cystitis. When it is proposed to go farther and add to the efficiency of diluents, mistakes are often made, for in the chronic form the urine is already alkaline, or becomes so on the slightest addition of alkalies to the blood. Such alkalinity in turn favors decomposition, the effect of which is to convert the pus, if present, into a tenacious, glairy fluid, which the bladder cannot evacuate. The indication under these circumstances is to render the urine acid, if possible, although this is very difficult to accomplish.

Benzoic acid will probably do this in 5-grain pills, at least six a day.

The second indication is to medicate the inflamed surface. Two ways, of course, suggest themselves: (*a*) by the internal administration of drugs; (*b*) by the injection of medicated liquids into the bladder.

The best of these is the oil of sandal wood in 10-minim capsules at least eight a day, two before each meal and two at bedtime. The preparation known as Santal-Midy is better borne than other specimens of the oil.

The application of remedies to the bladder by injection can be conveniently considered in connection with the third indication—the getting rid of the products of inflammation, the pus and mucus, and the compounds resulting from their decomposition. Tepid water should be at first used, and the injection made through the soft catheter, four ounces at a time. After a few injections with tepid water he adds a solution of salicylate of sod. in the proportion of one drachm to a pint. He also refers to boric acid, alum, and bichloride of mercury, beginning with 1 part in 25,000.

Where there is greatly enlarged prostate catherizing is indispensable, and is often attended by most happy results.—Dr. Tyson in *N. C. Med. Journal.*

THE TREATMENT OF ASTHMA.

The questions as to the etiology and pathology of this strange affection have been so thoroughly discussed by clinicians, physiologists, and pathologists that there is little more to be said, unless something definite can be stated in place of the numerous hypotheses which each writer has advanced. The truth is gradually dawning upon many in the profession that asthma is a symptom, not a disease, a manifestation of functional or organic disturbance in the nervous system, in the upper air passages, in the gastro-intestinal canal, or even in the kidneys, bladder, or uterus. As a result of this conclusion physicians no longer rest satisfied with simply prescribing for the asthmatic attack, but endeavor at the same time to discover and remove the cause which, however remote it may be, can generally be discovered by careful investigation. It is not the purpose of this article to call attention to the methods by which we proceed in the discovery and treatment of the exciting causes of asthma. Regarding the treatment of the case as consisting in a double line of procedure, we shall devote ourselves to the consideration of the care of the patient during the paroxysm, or just when a paroxysm is feared to be approaching.

It having been proved by C. J. B. Williams that the minute bronchial tubes contain as many, if not more, muscle-fibres as the larger ones, the question as to the possibility of there being a distinct contraction of the air-passages is assured. Stoerk and other clinicians have found that hyperæmia of the bronchial tubes is always present when asthmatic attacks occur, and still others have demonstrated the fact that the muscles in the walls of the tubes and the blood-vessels of the mucous membrane are governed by the anterior and posterior pulmonary plexus, which are made up of branches of the pneumogastrics, recurrent laryngeals, spinal nerves, and ganglia from the sympathetic system. Branches from these plexuses form a net-work about the bronchioles and contain ganglia. Reflex activity can therefore play an important part in the causation of asthma, and those remedies which decrease reflex activity and depress the vagus nerve or its terminal branches are nearly always indicated. It is for these reasons that belladonna has been so long a favorite drug for the relief of asthmatic attacks, since it depresses the power of the vagi. In a similiar manner is relief brought about from the administration of lobelia.

Within the last two years another remedy for asthma has been introduced into medicine,—namely, euphorbia pilulifera, the mode of action of which is almost unknown. Empirically, however, it has been found of service in asthma, and it may be employed along or in combination with several of the depressants to the pneumogastric nerve, in a prescription made up as follows, which is most readily given in a compressed pill or capsule :

℞.—Extract. Euphorbiæ piluliferæ. ♏ iii.
Nitroglycerin . . . . . . gr. $\frac{1}{200}$.
Sodii idodid. . . . . . . gr. ii.
Potassii bromidi. . . . . . gr. ii.
Tr. lobeliæ . . . . ♏ii.—M.

Sig.—To make one dose, which may be doubled or tripled, and used three times a day.

It will be seen that in this prescription we have the new antiasthmatic euphorbia, and in addition that powerful depressor of the vagus nerves, nitroglycerin, which at the same time tends to relax muscular fibres which are contracted in spasm. The lobelia has a similiar effect on the vagus, and the iodide of sodium exercises the peculiar effect which the iodides possess in altering abnormal secretion, and promoting normal function in the respiratory passages, in so far as secretion is concerned. Finally, the bromide tends to decrease reflex activity and so to lessen spasm in addition to quieting nervousness and relieving insomnia. The nitroglycerin is used in the comparatively small dose, in order to allow of the increase in the dose of the other constituents, without increasing, to too great a degree the dose of this powerful medicament. In obstinate cases, the euphorbia pilulifera may be given in separate doses to the extent of half to one drachm in addition to the prescription already named.—*Therap. Gaz.*

THE PATHOLOGY OF VERTIGO.

Dr. C. W. Suckling, in an interesting communication on vertigo to the *Birmingham Med. Rev.*, November, 1891, draws attention to the following points :

Vertigo, is a symptom, not a disease. It results from many morbid conditions. It is more frequently due to functional disorders than to organic disease of the brain. It is the consciousness of disordered equilibration, and is produced generally by a want of harmony in the impressions derived from the senses which subserve equilibration. The senses are : the impressions gathered by the terminations of the auditory nerves in the membranous labyrinth, especially the semicircular canals; sight, and the muscular sense of the muscles of the eyeballs; touch, especially plantar touch; muscular, and possibly articular and visceral, sensibility. The co ordinating centre is situated in the middle lobe of the cerebellum. The motor apparatus is found by the muscles of the head, neck, spine, and lower extremities. Derangement of any part of this mechanism may lead to vertigo; but the great organ of special sense for equilibration is formed by the semicircular canals. Vomiting nearly always accompanies intense vertigo, and is not nearly so suggestive of serious disease as it is when it accompanies headache.

Dr. Suckling classifies the forms of vertigo as as: (1) *Aural* or *labyrinthine* vertigo; (2) *Oscular*; (3) *Vascular*; (4) *Dyspeptic*; (5) *Nervous*; (6) *Epileptic*; (7) Due to *Organic Brain Eisease*; (8) *Toxic*; (9) *Ftom Reflex Irrttation.*

The first variety (Medière's disease) is by far the most important variety, though cerebral anæmia and brain exhaustion are the most common causes of vertigo. Menière's diseaee is characterized by three symptoms:—vertigo, which is severe and paroxysmal; tinnitus; and deafness. All these symptoms may be paroxysmal, but usually deafness and tinnitus are constant, though much increased during the paroxysmal attacks. Menière's disease is rare under twenty, more common after forty, and especially found during the degenerative period of life. The bromides hold, in Dr. Suckling's opinion, the first place in the treatment. In ocular vertigo, some error of refraction is usually present. Nertigo from disturbance in the blood-supply to the brain is of frequent occurrence; it is as a rule continous and paroxysmal. Some authorities deny that gastric vertigo exists, deeming all such cases to be really aural. Vertigo occurs as an idiosyncrasy in some people after eating certain articles of food. Nervous vertigo is produced by cerebral exhaustion; and it requires to be treated by rest, change of air, alcoholic stimulants, iron, and strychnine. Epileptic vertigo requires a continous treatment with the mixed bromides. Vertigo from organic disease may result from tumors situated in any part of the encephalon, but it especially occurs in tumors or lesion of the cerebellum and its peduncles, and of the pons. Under toxic vertigo we may include the vertigo of uræmia, gout, specific nerves, tobacco, alcohol, and drugs. In giddiness, convulsions, or other nervous disturbance in children, worms should always be suspected.—*Practitioner.*

PROPHYLAXIS AGAINST NEPHRITIS SCARLATINOSA.—Dr. Ziegler (*Berl. kl. Wochenschrift*), refers to the value of milk diet in the treatment of nephritis, especially in its acute form, and that in children it is very easy to carry out this line of treatment. Henoch, Senator, and Baginsky are each quoted in support of this treatment. Dr. Ziegler gives the results of his experience and observation for a period of six years as physician to the Military Orphan Asylum at Potsdam during nine epidemics of scarlet fever. In uncomplicated cases, his reliance was entirely upon a milk diet and rest in bed, in order to avoid catching cold. The favorable results led him to use it as a prophylactic against the development of nephritis during and after scarlet fever. Milk acts as a gentle diuretic and is at the same time a nutritious diet, which can be said of no other means at our command.

His mode of treatment is as follows: At the beginning of the attack, when there is high fever and loss of appetite, the milk is diluted with seltzer or soda water. This, with water gruel, comprises the only treatment in uncomplicated cases. After a few days, when the desire for food returns, zwieback or rolls are given with the milk. The amount of the milk is only limited to the appetite of the patient—sometimes one-and-a-half to two liters being taken in twenty-four hours. The diet is continued till the end of the third week, when other nourishment is gradually added. No statistics from his private practice are given, for the reason that he felt that they would not be reliable, as the patients could not be under absolute control. The study of the orphan asylum statistics covers the period from 1875 to 1892. In the nine epidemics there were 218 cases of scarlet fever; 115 cases occurred before the introductinn of the "milk-diet treatment." More than half of these had kidney complication during or following the acute disease. And it is farther recorded that many of these cases were of an extremely light form. In the second category there were many cases of great severity, some of which died in three or four days, but there was no development of renal complication during the stay the patients in hospital.

In private practice he found it difficult to confine patients to an exclusive milk diet, as they soon grew tired of it. In such instances he allowed farinaceous food with the milk.

[I have employed this method in several cases with the most satisfactory results. By combining farinaceous food with the milk early in the course of the disease, as soon as the patient begins to desire to eat, I have not met with difficulty in carrying out the principle. It is advisable to keep the bowels open at least every other day, preferably with small doses of soda and calomel. —F.H.S.]—*Brooklyn Med. Jour.*

URÆMIA.—Many middle-aged men are unwittingly the victims of a mild form of chronic uræmia; going about their daily avocations with heavy heads, hot skins, drowsiness, blurred sight, shortness of breath, and general feeling of uneasiness, "stupiness," oppression, and malaise. All these symptoms are quite consistent with derangement of the liver and digestive organs, but they are also frequently due to torpor of the kidneys, not yet actual disease, added to a lazy action of the skin. This leads them instinctively to the use of Turkish baths, hot water baths, and other modes of rapid elimination. And they really experience almost magical relief, feeling as though they breathe luxuriously through the skin as well as the lungs, for they have just expelled quite a quantity of pent up poison from their tissues. This poison consists of urea and other nitrogenized constituents of urine; and when a more formidable amount is locked up in the blood, through more urgent failure of the kidneys, headache, vomiting, puffiness of the eyelids and face, ascites, and most alarming symptoms of blood-poisoning develop. The pupils now dilate, the odor of the breath and perspiration become "urinous," the breathing is labored and there is evident cerebral disturbance, leading to delirium, convulsions, and coma. Sometimes an attack simulating epilepsy or apoplexy sounds the first note of warning. These symptoms constitute acute "uræmia," or an accumulation of urea in the blood, though it is just as likely due to other excrementitious products; in fact, in many instances, as in the uræmia of cholera and some hepatic diseases, the vital fluid is singularly free from urea. The diseases associated with acute uræmia include the various forms of Bright's disease; typhus, typhoid, scarlet and yellow fevers; smallpox, pleurisy, and probably diphtheria and acute rheumatism; extravasation and suppression of urine, stone in the kidneys, impacted calculi in the ureters, impassable stricture of the urethra, and cancer of the uterus. The treatment must necessarily be active, but it is far from satisfactory in severe cases. Horizontal posture, with the head raised; cold applications to the scalp; sinapisms to the loins; vapor baths; purgatives; diaphoretics; hot blankets; sometimes bleeding; chloroform or ether; jaborandi; nitro-glycerine; oxygen inhalations; digitalis leaves as poultices to the abdomen; and transfusion of blood. Dieuretics are to be avoided when the kidneys are in a state of irritation; and the main channels of elimination shall be sought through the media of the skin and intestines.—Louis Lewis, in *Times and Register*.

"ELIMINATION OF MICRO-ORGANISMS BY THE SWEAT."—Under the above title a short paper appears in *L'Union Médicale* for March 3rd of this year. It commences by stating that it is still an unsettled question as to whether micro-organisms are able to pass through certain vessels and organs, and then be eliminated by means of the kidneys or intestinal canal, when these organs are in themselves perfectly unaffected and in a healthy condition. According to some authorities, amongst whom is Wyssokowitch, such an event can only occur when there is a sanguineous exudation, or the tissues of the kidneys or intestine are diseased. Some observers, on the other hand, deny that such conditions are necessary. Thus Trambusti and Maffucci maintain that they have found anthrax bacilli in the urine and bile when no disease whatever could be found in the kidneys and liver. Baumgarten, again, states that he has seen tubercle bacilli pass from the blood into the tissues when the walls of the vessels were quite healthy. From other authorities we learn, on well-established evidence, that pathogenic micro-organisms can pass into the milk when the mammary glands are unaffected. Brunner investigated this matter from another side, and demonstrated the fact that pathogenic microbes could be eliminated by means of the sweat. This investigation was met with a great difficulty from the outset—namely, that it was not easy to sterilise the skin so as to be sure that the micro-oranisms which were found in the secretion, and cultivated in artificial media, were derived from the tissues and fluids of the body, and not from its cutaneous surface. This difficulty was overcome by using animals for experiment which had been inoculated with disease, the pathogenic organism of which could not accidentally have found its way on to the skin. The animal was then made to perspire profusely by artificial means, pilocarpine being usually employed for this purpose, and then further inoculation and cultivation experiments were made with the sweat. Proceeding in this way, Brunner injected a culture of staphylococcus aureus into a hog, one of anthrax into a cat, and one of micrococcus prodigiosus into a sucking-pig. In all three cases the microbes injected were found in the sweat, and also in the saliva. This is an important discovery, from both practical and theoretical points of view. It gives the crises, accompanied by profuse perspirations, which may be produced artificially or occur naturally, a still more important place than they formerly held. It also demonstrates that there may be great danger in allowing a patient who has been sweating profusely to possibly reabsorb the secretion, and that therefore it is a good plan to employ moderate friction with dry cloths when such a crisis occurs, and to subject all linen and clothing capable of absorbing the sweat to immediate disinfection. Another precaution which the investigation indicates is that when an abscess is discharging externally, or when a patient is suffering from erysipelas or other infectous cutaneous affection, there is great danger to the patient himself if the linen, etc., are not changed after profuse sweats, as the micro-organisms may possibly be absorbed by the skin. It is singular, however, that several observers (including Mattei, Surmont, and Lille) have failed, after numerous attempts, to find tubercle bacilli in the sweat of phthisical patients; so numerous have such trials been that we may almost consider it as absolutely proved that such migration of the bacilli does not occur.—*Lancet.*

THE SURGICAL TREATMENT OF TUBERCULOUS CERVICAL GLANDS.—Owen, in writing on this subject (*The Practictioner*) emphasizes the importance of early operation. The routine treatment of iodine and poultices he considers unsatisfactory, and the administration of sulphide of calcium has been in his hands the "veriest impostor of the Pharmacopœia." Even a visit to the seaside is considered as so much time wasted. Aspiration of a suppurating gland is characterized as a half-way practice. Once a gland has broken down, an operation becomes imperative. If the surgeon does not interefere, Nature performs the work, but at best slowly and imperfectly, and with much greater deformity than after the surgeon's knife.

In those cases which are seen early the opertion is a very simple affair, but unfortunately comparatively few consult the surgeon at this stage.

The operation, to be successful, must deal radically with every affected gland and sinus. Due regard must be had for the various important structures of the neck. Of these, the internal jugular vein causes the greatest anxiety, these growths at times being intimately connected with the wall of this vessel, which is frequently seen exposed at the bottom of the wound. The author refers to a well-nigh fatal attack of dyspnœa in a child on removing a sarcomatous tumor of the neck. Owing to the difficulties and dangers of these operations, it is advised to have a skilled anæsthetist and a familiar and trustworthy assistant.

It is considered a mistake to attempt to work through too small an incision or to spare the scalpel at first, though subsequently the more blunt dissection the better. Diseased skin should be sacrificed, and when all is completed the cavity may be filled with powdered boric acid and covered with an antiseptic dressing.

If the wound be a clean one primary union may be aimed at by the introduction of sutures. When the glands are broken down, however, and the curette has been employed freely, the wound should not be closed. Occasionally a second cleaning and scraping is necessary before complete healing occurs.

The author does not consider the risk of general dissemination of tuberculous matter after such an operation to be great, but believes, on the contrary, that the patient has been rid of much of the danger of general tuberculosis. [This is all in accord with modern teachings, and has been especially emphasized by the writer and Mr. Treves. The one point which seems open to dispute is, as to the value of such measures as change of climate. If the case is seen early and is not rapidly progressive, and if no glands are as yet broken down or caseating, it is unquestionable that sea air or mountain air, cod-liver oil and the iodide of iron, limitation of the movements of the head by means of a collar like an old-fashioned "stock," attention to any defects of neighboring skin or mucous surfaces, etc., may sometimes be followed by resolution. Operation, though advisable, and, indeed, necessary in the great majority of cases, need not be considered the invariable rule.—J. W. W.]—*Am. Jour. Med. Science.*

THE FUNCTION OF THE HAIR-TUFTS IN MAN.—In the *Journal of Anatomy and Physiology*, Dr. Louis Robinson formulates a theory to account for the persistence in man of the tufts of hair usually present in the axillæ and over the pubes. These he imagines to be the persistent remnants of hair-tufts developed with reference to the clinging or grasping power of the young, and as a means of enabling them to cling to the parent when he or she, as the case may be, was not in a position to spare an arm without much imperiling the chances of escape or rendering movement difficult. Naturalists have observed that young apes hang beneath the body of the mother and sustain themselves by grasping the hair, and it is stated that certain male gibbons assist in carrying the helpless young. It is an interesting point that in these apes the period of immaturity is prolonged almost as much as in man. Other considerations which Dr. Robinson looks upon as supporting his theory are the appearance of the hair at puberty, its appearance in both sexes, and the fact that it often appears earlier and more plentifully on the female. It also exists in parts where the young of tree-climbing animals could attach their hands without danger of violent contact from obstacles, and Dr. Robinson has ascertained by measurement that in most cases the situation of the axillary and pubic tufts is within easy reach of the hands and feet of infants when their limbs are extended, if the body of the adult is in the position taken by that of an anthropoid ape in climbing. The theory is no doubt ingenious; but objections to it readily occur. Dr Robinson considers some of the most obvious of these, such as the existence of similar hair elsewhere and the sensitiveness exhibited by the skin when the hair in those parts is pulled. These, of course, are capable of being explained; but the theory would be very much strengthened if any example could be quoted of an anthropoid ape in which these tufts are actually used in the manner suggested by the author. Their development, if the theory is correct, must have been very much greater in his ancestors than it is in man at the present time, to account for their persistence now, not only in the absence of any use for them for so many ages, but actually in spite of very considerable drawbacks to their existence, such as much exist in the friction to which they are exposed.—*Lancet.*

THE TREATMENT OF REDUCIBLE HERNIÆ BY THE INJECTION OF ALCOHOL.—Edward Steffen, of Zurich, during the past three years, has treated 326 cases of reducible herniæ by Schwalbe's method, and has published the results in the *Correspondenz-blatt für Schweizer, Aerzte.* In most instances the patients were able to continue their work during treatment. After the injection the puncture was cleaned and covered with mercurial collodion. Notwithstanding, in a few cases, sloughing took place; but this acted rather beneficially than otherwise. The number of injections in a single case varied from 6 to 168, the latter extending over a period of two years and a half. A medium-sized rupture in an adult required from 80 to 100 grammes of alcohol. The author used alcohol 70 per cent. in doses of one to four grammes, substituting in exceptional cases extract of oak bark. Latterly he found the addition of phosphoric acid, in the proportion of 1 to 200, advantageous. In thirteen cases the result of the treatment is not known, in twenty-nine a cure was not possible from various causes, such as obesity or size of the rupture; of the remainder, 245 cases are reported cured and nineteen improved. The longest time taken to effect a cure was four years, the shortest one year. Of 257 inguinal herniæ, 216 cases were cured and 16 improved, with 23 relapses. Of 13 femoral herniæ, 9 were cured and 2 improved, with 1 relapse. Of 19 umbilical herniæ, 17 were cured, with no relapse. Of 4 herniæ in the linea alba, 3 were cured, the other improved. It appears that the more recent herniæ and the younger the patient the more favorable the prognosis, and the ambulant treatment, with intervals of three to seven days between the injections, gave better and more lasting results than the treatment in bed with daily injections.—*Lancet.*

PUERPERAL SEPTICÆMIA FROM MEPHITIC AIR.—Guéniot (*Bull. de l' Acad. de Méd.,*) read before the Paris Academy of Medicine on March 1st, 1892, a paper on this subject, which raised a very active discussion. It was based on four cases, in which the mothers all recovered after running great peril; the children were all born alive. The house where the patient lived was in each case malodorous. In the first case, the poisonous air arose from an untrapped sink pipe in a dressing room attached to the patient's bedroom. A similar insanitary arrangement existed on each floor. In the second case, a filthy privy on a staircase close to a large library room was the source of infection; the other side of the library. In both these cases the forceps was used with every precaution; Guénoit had employed instruments repeatedly without any similar accidents. In the remaining cases, no forceps was required; the mephitic air came from a privy in the third, and from a ventilating pipe connected with a cesspool in the fourth. Free carbolised intrauterine injections and other precautions saved the patients. Guénoit declared that mephitic poisoning during pregnancy occurred in the respiratory tract; after pregnancy it entered through raw surfaces contaminated by liquids and solids already infected by the poisoned air. The septicæmia so produced was not of a suppurative type; its chief focus was the uterine cavity, where the septic vibrios met, in fluids holding the products of mephitism, a first-rate cultivating medium. M. Alphonse Guérin, who claimed to have discovered the germ theory of sepsis many years before the modern antiseptic doctrines were first promulgated, and M. Charpentier alike scouted the theory of infection through the lungs. That way of infection only occurred in paludal fevers. Had the mephitic poisoning occurred through the lungs in M. Guénoit's cases the patients would have been taken ill during pregnancy, not after delivery; and M. Guéniot did not explain how it was that the other inhabitants of the houses where the patients lived managed to escape infection. M. Charpentier considered that injections were insufficient, the curette should be used as well, but M. Guéniot maintained that the curette often made these cases worse. The septic symptoms only appeared after delivery because then a far larger dose of the poison was taken into the system than before.—*Br. Med. Jour.*

THE SUBSEQUENT RESULTS OF SIMPLE RESECTION OF THE SCROTUM AS A TREATMENT FOR VARIOCELE.—Wickham, in the *Revue Générale de Clinique et de Therapeutique,* gives the ultimate results of five cases of this operation. In performing it one should resect, from the parts on either side of the raphe, a sufficient quantity of skin, so that the scar will fall in the median line and appear like a normal raphe. The remaining skin supports the testicles, and presses them up against the external abdominal rings. The operation is easy of performance, but care should be taken to excise a sufficient amount of skin, and a special clamp devised for the purpose had better be used. The first case, aged forty-four, for several months had pain while walking for any distance. The operation above described was performed, and three years later the scrotum had not enlarged, but was of normal dimensions. The veins appeared normal to the touch, and all pain had disappeared. The second case, a man, aged thirty-eight years, was also found completely cured after a lapse of three years. Case three, aged twenty-nine years, had a long and flaccid scrotum. Two years after the operation there was no pain, and the scrotum normal in size. Case four, a young man aged nineteen, had a large varicocele and relaxed scrotum. Nearly four years after he had been operated upon, his condition was perfect. The fifth case was aged thirty-three years, and after three years and a quarter was still found perfectly cured.

These cases show the good results to be obtained by excising a portion of the scrotum in cases of varicocele. While one cannot say the disease will never return, still the statistics compare favorably with those of operations, for the same condition, on the veins themselves; also, as the operation can hardly be deemed other than one of expediency, it has the advantage of not endangering life. There is one contra-indication to its performance, and that is when the pains complained of are increased by the wearing of a suspensory badge.—*University Med. Magazine.*

CARBOLIC ACID POISONING.—On December 26, 1888, a child fifteen months old drank some crude carbolic acid from a bottle. Its parents being close at hand, heard its cries, and the father snatched the child in his arms and ran to my house, not more than one hundred yards distant. Probably not more than two minutes could have elapsed between the taking of the poison and the time when I saw the child, and it was then totally insensible.

The pupils were much contracted, the corneal reflex was absent, the breathing labored and noisy, the face pale, and the lips cyanosed where not seared with the acid. The pulse was almost imperceptible and the child appeared to be on the point of death.

I poured an ounce or two of olive oil down its throat at once and injected $\frac{1}{10}$ gr. of apomorphia into the arm. I then passed a No. 10 gum catheter down the œsophagus, and with a large brass syringe injected four ounces of milk and olive oil. On turning the child on its face with the head lowered, this at once escaped again through the catheter, and in this way the stomach was repeatedly and quickly washed out, the first of the returning fluid smelling very strongly of carbolic acid. Ultimately about four ounces of the oil and milk were left in the stomach. Although the dose of apomorphia was a large one ($\frac{1}{10}$ gr.) vomiting did not occur for more than an hour after its administration. The milk and oil then expelled had but a faint carbolic odor.

Sensation returned in the cornea after about two hours, the contraction of the pupil passed off, and in three hours from the time of taking the poison the child, in spite of the burnt state of the tongue, was able to take the breast. The tongue, fauces, and buccal mucous membrane were extensively burnt, and externally the burns extended around the mouth, over the chin, throat, chest, and abdomen almost as low as the umbilicus. The fingers also were burnt, and there were various smears and finger marks over the cheeks and around the eyes. As to the quantity of acid swallowed, I am unable to judge with any approach to accuracy. No convulsions occurred, and the child made an excellent recovery.—*Austral. Med. Gaz.*

NEURASTHENIA AND HYPER-ACIDITY.—The *Medicinisch Chiruryische Ruugschau* reviews an article by A. Pfannenstill, of Stockholm, in the *Nordiskt Mad. Ark*, on the connection between the above-named two conditions. Neurasthenia and nervous dyspepsia are, according to the writer, as frequently seen in Sweden as in other parts of the world. A valuable addition to the etiology of these complaints is that all the cases observed by Pfannenstill belonged to the working classes, so that neurasthemia is certainly not confined to the uppler classes of society, who are most exposed to the excitement of modern life. Of both complaints a primary and secondary form can be distinguished; but the latter, which is merely a symptom of other affections, especially hysteria, is much the more frequent. Hysteria is more often observed in connection with a general neurasthemia, in which the functions of the secreting nerves are always disturbed, and we may find in consequence hyper-acidity and hyper-secretion, or subnormal acidity, or even an entire absence of acid. The hyper-acidity is entirely due to an increase of hydrochloric acid. Pfannenstill considers that this hyper-acidity is the result of an increase in the quantity of the gastric juice, and not merely of the hydrochloric acid, and that there is no decrease in the power of absorption. Increased secretion of gastric juice is probably the source of of hyper-acidity in other affections of the stomach, and the reverse is probably equally true.—*Lancet.*

SIR GEORGE HUMPHRY ON "NIPPING."—Professor Sir George Humphry, F.R.S., in addressing the Cambridge Temperance Association this week, took occassion to protest against the common form of intemperance in drinking, which was short of drunkenness, but which, as it was more general, was more prejudicial, and was doing more damage than actual drunkenness. This was the habit of "nipping"—taking a glass now, a glass then, and a glass often; in the morning (which was worst of all), at the midday meal, in the afternoon, and in the evening. Even more than drunkenness, this was terribly damaging to the system; it made men soddened, and was evinced in a general shakiness of the hand, sometimes of the step, and above all of the tongue—in fact, a general shakiness of all the organs. The "nippers" succumbed to slight accidents, slight illness, or slight shocks of any kind. Prick them, and the life, as it were, ran out of them. They said, "My work is hard," and they took the very means which unfitted them for good and prolonged work. By temperance in drink, he meant that nothing should be taken whatever under any conditions except at meals, and very little then. Those who could not be absolutely temperate, and content with moderation, should become total abstainers.—*Br. Med. Jour.*

TREATMENT OF DYSENTERY.—Drs. Lardier and Pernet strongly recommend the use of salol and iodoform in the treatment of dysentery. Salol, in four-grain doses suspended in mucilage, acted in a most salutary manner; but iodoform—from four to six grains daily, combined with opium—gave the most beneficial results. The iodoform was given in capsules, each containing three-quarters of a grain of iodoform and a quarter of a grain of opium, to be taken five or six times during the day. The pain and tenesmus were relieved by warm boracic acid enemata, and in obstinate cases by a suppository containing hydrochlorate of cocaine and opium. In addition to this treatment great cleanliness was observed, the patient being washed daily with a saturated solution of boracic acid or with a solution of corrosive sublimate of the strength of 1 in 500.—*Lancet.*

COMMON SALT FOR FACIAL NEURALGIA AND ALLIED NEUROSES.—Take chloride of sodium finely powdered and perfectly dry, use as a snuff in the nostril of the affected side. The best results are obtained when the salt is administered through an insufflator. An insufflator holding four or five grains is sufficient. As the powder is blown in the nostril ask the patient to enhale through the nose, that the remedy may be thoroughly distributed over the membranes. The application will cause but little pain or discomfort, and often a single treatment will immediately inhibit a neuralgia, especially when it is recent and located in one branch of the fifth nerve. In other cases, where the disease has been protracted and extensively distributed, the insufflation may be repeated every one-half to one minute for five to ten minutes. This novel treatment has given satisfaction many times, and may also be used for odontalgia, cephalgia, bronchial asthma, etc.—*Medical Free Press.*

ON THE TORSION OF ARTERIES.—In connection with operations for excision of tumors, and other excisions of a like character, Jonathan Hutchinson remarks as follows: "I may mention that for many years I have quite ceased to use any other means for arrest of arterial bleeding than torsion. In excisions of the breast, for instance, I do not think that I have during the last fifteen years ever used a ligature. The torsion is always effected by a pair of Wells' clamp-forceps, now in such universal employment. I am always extremely careful to close all vessels, keeping the wound exposed for a considerable time for that purpose. Very seldom, indeed, have I encountered any secondary hæmorrhage."—*Archives of Surgery.*

CONSTIPATION OF INFANTS.—Karnitsky's method of treatment by abdominal massage was used by him in twelve cases of chronic and twelve cases of acute constipation in children from eight to eleven years of age. The following are his conclusions:

1. Abdominal massage may produce effects upon the alimentary tract, in connection with digestion, which are not inferior to those produced by purgatives.
2. Habitual constipation may be easily cured by massage without the aid of purgatives.
3. The younger a child is the more readily can the constipation be cured.
4. The younger a child is the milder should the manipulations be, and the shorter the séances.
5. The duration of the séances should be from three to ten minutes, according to the age of the patient. Longer séances are inadvisable, and may even be harmful and aggravate the condition of the patient.
6. Abdominal massage may be regarded as the best means of treating constipation in children. Purgative should only be used in exceptional cases.

THERE are some women of the brunette type, usually with an olive skin, sometimes with a fair skin, who have the misfortune to bear upon their upper lip or on the sides of their face, just in front of their ears, a growth of fine, dark hair. The hair is of the lanugo variety, and is noticeable only on account of its dark color. The application, by means of a camel's-hair brush, of hydrogen peroxide, will bleach the hairs, and render them invisible except on very close inspection. As a preliminary measure, it is well to wash the growth with a solution of powdered borax in water, to remove the grease which adheres to every hair. The application should be made several times a day until the hairs are thoroughly whitened, and after that as often as is necessary to maintain the color.—*Maryland Medical Journal.*

GOITRE AND CRETINISM.—A recent discussion on goitre and cretinism in Paris revealed the fact that there are now, in thirty departments of France, no less than four hundred and twenty thousand persons suffering under the former malady, while cretinism is becoming more common in the Pyrenean and Alpine valleys. It was proposed that the government should be asked to provide funds for the draining of the soil of the districts chiefly affected, and that steps should be taken to supply the inhabitants with filtered water. For the treatment of cretinism it was suggested that some of the old transport ships might be converted into naval hospitals.—*N. Y. Med. Record.*

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CANTHARIDES INTERNALLY ADMINISTERED.

The *Therapeutic Gazette* for March, '92, contains an interesting article upon the internal uses of this drug, so commonly used externally, and so little internally. The key-note to its use—the general principle underlying its exhibition, is the stimulating effect it has upon epithelial cells. This stimulation, of course, if allowed to go too far, readily becomes irritation. Apart from its external use as a blister, irritative action should always be avoided, as the therapeutist will defeat his own ends by securing more than a stimulating action. The epithelia readily subjected to its action, are two, that of the skin and that of the genito-urinary tract, the latter being subdivisible into the three areas, renal, vesical and urethral. Bearing this anatomical division of our subject in mind, we may intelligently proceed to our therapeusis. No one is likely to use cantharides for its local effect upon any part of the alimentary canal. Its action is secured only after the entrance of its active principle cantharidine into the blood. First as to its action thereafter upon the skin. Eminent French dermatologists have highly recommended it in psoriasis, eczema, lichen, and prurigo. The dose should be cautiously begun at half one drop three times a day, and the urinary secretion watched. It need not be persevered in if good results do not follow from a dose of two or three drops at most.

Secondly, as to the effect of cantharidine when excreted by the renal epithelium. Its action will be exerted here first on the renal epithelium itself. If in sub-acute or chronic Bright's, following on an acute parenchymatous attack, the urine remains albuminous or bloody, or is scanty, minute doses may be given, 1-2-3 minims of the tincture three times a-day, or every four or six hours, and the good effect is often very prompt. Ringer recommends it highly, and says that while the urine becomes less albuminous the controlling influence of the drug over the hæmaturia is much more marked. In the passive congestions, accompanied by albuminuria, which result from circulatory or pulmonary disturbance, such as cardiac asthma, valvular incompetency, or portal obstruction, the drug often acts well, by "stimulating the depressed and inactive secretory epithelium of the kidney to increased action." Its use is recommended both in the fatty kidney of parenchymatous nephritis, and in the chronic contracted kidney with œdema and threatening eczema or ulcer of the legs, its action on the latter condition being two-fold, both local, and through the medium of the kidneys, by stimulating them to increased and derivative action. If small doses, say two drops three times a-day, are not effective, they need not be increased, or harm will be done, as "there is the danger of inflaming the secreting cells in an injured kidney, and so disabling the entire organ temporarily or permanently."

Following the excreted cantharidine down with the urine, we find that in certain forms of urinary incontinence, depending mainly upon want of control of the vesical sphincter, it is of great service. The partial incontinence that often follows childbirth, or is due to debility following prolonged illness, characterized by the escape of a few drops of urine on any sudden movement, singing, laughing, etc., or the same incontinence sometimes accompanying chronic bronchitis, is often much benefited by cantharides. Ringer says that it is even of service not infrequently in incontinence due to paralysis, and sometimes in the enuresis of children, though belladonna is usually better in the latter case. The *rationale* of its action in these forms of atonic incontinence is that its stimulant effect upon the vesical mucosa is reflexly felt by the spinal centre, which is urged to resume control of the situation. It may be employed with good results in cystitis, sub-acute, or chronic, with urine still acid, the latter point being carefully noted, and its reason evident. Also in gonorrhœa in the third stage, or in gleet, its action being just that of copaiba and the similar oils in ordinary use in such cases. The latter field of action is the last, according to the anatomical basis laid down for our guidance in the consideration of the subject. The familiar aphrodisiac action of the drug depends upon its effect here, and if combined with iron, phosphoric acid and strychinine it is often of service in impotence, whether due to old age, self-abuse, or sexual excess. As an abortive it is very dangerous.

VALVULAR HEART LESIONS.

A question that not infrequently arises to confront the conscientious medical man, who has discovered a cardiac murmur in the course of a physical examination, is, whether or not it is his duty to inform the patient that he is suffering from "heart disease." For there can be no doubt that many subjects who present what are called murmurs, live out the allotted span of life, or die of some inter-current affection having no connection with the heart; and the cruelty of damning some young man's career, by hanging the sword of sudden death over him, will be apparent to any thinking man. When students are learning auscultation at the bedside, it would be well if at the same time, they were informed that the presence of a valvular lesion, does not necessarily indicate that treatment is called for. Indeed as treatment, even when indicated, is usually of little avail, it is seldom necessary to inform the patient of the existence of a lesion, for the information cannot have other than an extremely prejudicial effect upon his peace of mind, and will tend to increase his trouble, if he has as yet complained of any. In many cases not presenting acute symptoms, it would be well to keep in mind the old adage, "Where ignorance is bliss 'tis folly to be wise." As Sir Andrew Clark sententiously remarked on one occasion, when the prognostic value of valvular lesions was under discussion. "It is quite early enough to tell a patient that he has disease of the heart, when the results are beginning to make themselves felt."

In addition to this, he told the story of a certain hospital secretary, to whom it became necessary to insure his life at a time when he was making all the arrangements for getting married.

On undergoing the examination, he was rejected upon the ground that he was suffering from a serious form of heart trouble, which, upon further pressing, the doctor opined would prove fatal at some undetermined, but in all probability not far distant, period.

The result was the breaking off of the matrimonial engagement, and as the authorities of the institution didn't like the idea of their secretary suddenly dropping dead about the premises, he was pensioned off on full pay, on the tacit understanding that he was not going to live long. That gentleman, though willing to be obliging under ordinary circumstances, lived long enough to be examined by Sir Andrew, a decade or two later, for some totally distinct affection. The writer knows of two young medical men suffering from valvular disease, accidently discovered while practising auscultation in college days, who live lives of constant misery and dread, ever on the outlook for some symptoms of active trouble. Instances such as these could be multiplied *ad infinitum*, and serve to point out the necessity of great caution upon the part of physicians, who may, by a needless word, blast a promising career forever.

We must not forget moreover, that valuable as are the indications derived from auscultation, they are by no means absolute, and in order to make a correct prognosis, it is necessary to take into consideration the effects of the supposed lesion, as evidenced by the symptoms. In a certain proportion of the cases in which there is evidence of "something wrong with the heart," no symptoms of any kind are produced. Sometimes this is due to the fact that the lesion is due to a malformation, which has been fully compensated in the course of development, and entails no physical incapacity so far as the integrity of the circulation is concerned. In other words the abnormality may have become normal. Then too, we all are aware that the lesions which give rise to signs, most easily recognized by means of the stethoscope, are frequently of small importance intrinsically; indeed, it is an axiom that the most serious lesions are often the least obvious, and conversely.

We must be guided then in these cases by the amount of physical disturbance present with the valvular disorder, for by no other means are we able to make any prognosis of the probable outcome of the trouble.

So long as physical equilibrium is maintained, and the functions appear normal, there is no reason for any alarming prognosis, nor restraining treatment.

But when the physical signs and disturbance of equilibrium render it obvious that disease is advancing apace, then it becomes our duty to inform the patient as to the true aspect of affairs; and to enter upon an active course of treatment.

Coming to a question of treatment, much good work has been done lately to show that in certain selected heart cases, graduated exercise gives excellent results.

Oertel's name has come into prominence as the originator of a method of treating degenerated heart muscle, by carefully graduated "cardiac gymnastics," which have given much satisfaction, and has restored to comparative health, a large number of persons, otherwise doomed to a life of hopeless invalidism.

ONTARIO MEDICAL ASSOCIATION.

We would earnestly call the attention of our readers to the announcement of the programme for the meeting of the Medical Association in June. This is the one opportunity in the year afforded to our profession for a common meeting-place, and we would like to see the great bulk of provincial physicians availing themselves of the privilege—for such they should deem it.

The programme always provides abundance of food for thought and discussion; entertainment, public and private, is not wanting, and those questions which affect the profession, as a whole, are frequently threshed out.

Those physicians who do not enrol themselves in the membership, fail to make use of an organisation of great pleasure and profit both from a professional and social standpoint.

The programme this year affords a new feature, in the symposia upon topics of leading interest. The titles of the papers promise good things, and the discussions will be fought out upon real live subjects.

ONTARIO MEDICAL ASSOCIATION.

The 12th annual meeting will be convened in Toronto at 9.30 a.m. on Wednesday, June 1st, and continue to the evening of Thursday, June 2nd. The following subjects have been selected by the Committee on Papers for the final discussions:

"Diphtheria."—Discussion led by Dr. A. S. Fraser, Sarnia; assisted by Dr. W. Britton, Toronto; Dr. T. S. Harrison, Selkirk; Dr. H. P. Wright, Ottawa.

"The Present Status of Antiseptics in Surgery."—A discussion led by Dr. R. B. Nevitt, Toronto; assisted by Dr. J. K. Holmes, Chatham; Dr. N. A. Powell, Toronto; Dr. Geo. A. Peters, Toronto.

"The Third Stage of Labor."—A discussion opened by Dr. A. H. Wright, Toronto; assisted by Dr. H. S. Griffin, Hamilton; Dr. J. M. Cotton, Lambton Mills; Dr. N. W. Meldrum, Ayr.

"The Therapeutics of Constipation."—A discussion led by Dr. J. C. Mitchell, Enniskillen; assisted by Dr. A. McKinnon, Guelph; Dr. J. J. Farley, Belleville; Dr. Geo. Acheson, Toronto.

"Hay Fever."—A discussion led by Dr. D. G. Hodge, London; assisted by Dr. G. R. McDonagh, Toronto; Dr. A. B. Welford, Woodstock; Dr. W. J. Wilson, Richmond Hill.

A Symposium upon "Hip-joint Disease."—(1) "In Early Diagnosis." (2) "The Expectant Treatment." (3) The Operative Treatment," by Dr. I H. Cameron, Toronto; (4) "The Mechanical Treatment, before and after Operation," by Dr. A. McKay, Ingersoll.

A Symposium upon "The Pneumonias of Children."—(1) "Differential Diagnosis of Lobar and Lobular Pneumonia, and of Pneumonia from Bronchitis," by Dr. H. J. Machell, Toronto; (2) "Diagnosis of Lobular Pneumonia, Acute and Chronic, from Tuberculosis; (3) Diagnosis of Pneumonic Consolidations from Pleural Effusion," by Dr. W. H. Henderson, Kingston; (4) "Prognosis in Pneumonias Generally," by Dr. Allen Baines, Toronto.

The President's Address—Dr. R. A. Reeve, Toronto.

"On Chloroform Inhalation"—Dr. A. B. MacCallum, London.

"Acute Suppurative Pleurisy," A case—Dr. H. S. Clerke, Lucan.

"Brain Injuries"—Dr. J. Olmstead, Hamilton.

"Ventral Hernia," The flap-splitting operation—Dr. H. Meek, London.

"Otitic Cerebral Abscess"—Dr. G. Sterling Ryerson, Toronto.

"Diphtheria"—Dr. W. J. Wilson, Richmond Hill.

"Disinfection after Infectious Disease"—Dr. W. J. Greig, Toronto.

"Angina Ludovici"—Dr. G. L. McKellcan, Hamilton.

"Ocular Paralysis from Basal Lesion"—Dr. D. J. Gibb Wishart, Toronto.

Report of three cases of congenital malformation of the female sexual organs, with remarks—Dr. A. Vanderveer, Albany.

"The Dressing of the Wound after Supra-Pubic Cystotomy"—Dr. A. Groves, Fergus.

Dr. Sangrill, Osweton; Dr. Welford, Woodstock; Dr. Harvie, Orillia; Dr. Gibson, Belleville; Dr. Lett, Guelph; Dr. Howitt, Guelph; Dr. Clark, Kingston; Dr. Brown, Owen Sound; and Dr. Saunders, Kingston, have also expressed their intention of reading papers.

The following are the officers for the meeting: *President*, Dr. J. A. Reeve, Toronto; *Vice-Presidents*, Dr. F. le M. Grassett, Toronto; Dr. A. Grover, Fergus; Dr. H. J. Saunders, Kingston; Dr. G. I. McKeough, Chatham; *Secretaries—General*, Dr. J. Gibb Wishart, Toronto; *Assistant*, Dr. F. P. Cowan, Toronto; *Treasurer*, Dr. E. J. Barrick, Toronto.

The chairmen of the committees are requested to organize their committees and have their reports in readiness for the meeting.

If any member desires to present a paper or a case, the title should be in the hands of the Secretary by the 10th of May at the latest.

Candidates for membership require to present nomination papers signed by two members.

Delegates travelling to this meeting will obtain tickets for one fare and one-third by applying to the station agent at the starting point.

Dr. J. Gibb Wishart,
General Secretary.

April 25th, 1892.

MEDICAL EXAMINATIONS.

TRINITY UNIVERSITY.

Primary Examination.

Class I.—A. L. Danard and R. King (æq), silver medallist and certificate of honor; C. D. Parfitt, H. R. Frank, L. Lapp, B.A., T. G. Devitt, G. H. Field and F. C. Harris (æq); J. L. Bradley, J. D. Windell, J. Semple, A. K. Ferguson, H. E. Armstrong are awarded certificates of honor. The following are also placed in the first class:—H. Livingstone, P. D. White, A. R. Colvin, T. Kerr, W. H. Scott, C. M. Kingston, C. H. Thomas.

Class II.—F. G. Storey, E. L. Proctor, G. Alexander and J. M. Jory (æq); T. A. Manes, M. Baker, A. McKay, A. G. A. Fletcher, Miss J. S. Shirra and J. T. Somerville (æq), J. S. Matheson, J. C. Hay.

Class III.—Miss G. W. Hulet, F. S. Nicholson and D. Thomson (æq), W. W. McQueen, T. N. Insley, and Miss R. Pringle (æq), M. F. Lucas, F. N. Henry, J. W. White.

Final Examination.

Class I.—H. B. Anderson, gold medallist and certificate of honor: A. S. Tilley, W. E. Sitzer, H. C. Parsons, H. L. Barber, R. M. Mitchell, R. N. Fowler, F. Fenton, and Miss J. Gray (æq), D. McEachern, C. McPhail, are awarded certificates of honor. The following are also placed in the first class:—W. E. Potter, W. E. Mathew, A. P. Chalmers, J. J. Thompson, T. B. Scott, B.A., J. W. Bryen, A. M. Cleghorn.

Class II.—J. A. Kemp, G. J. McPhee, R. M. Curtis and A. W. Allingham (æq), D. A. McPherson, T. M. Williamson, G. K. McDowell and D. A. Beattie (æq), B. G. Coates, Miss E. R. Gray, E. B. Blain, A. Flath, N. Anderson, M. Ferguson, E. O. Bingham and Miss B. Dymond (æq), W. Reid, J. J. Roach and W. E. Ogden and H. J. Orchard (æq).

Class III.—E. F. McCullough, T. M. Allan, F. N. Henry, J. A. Mitchell, Miss A. Chambers, W. J. Proctor, W. M. Anderson and J. W. Wheeler (æq), H. Morell, A. L. Murphy, W. C. Belt, H. J. Denovan, E. W. Goode, A. P. McLaren, M. F. Lucas, J. W. White.

TRINITY MEDICAL COLLEGE.

Primary Examination.

Examinations for the fellowship degree, certificate of honor for standing in the primary branches.—Candidates who obtained 75 per cent. and over:—A. L. Danard, C. D. Parfitt, H. R. Frank, F. C. Harris, A. K. Ferguson, H. E. Armstrong. Class I.—70 per cent. and over:—H. Livingstone, P. D. White, T. Kerr, C. H. Thomas' Class II.—60 per cent. and over :—R. L. Proctor' T. A. Manes, A. G. A. Fletcher. Passed—F. S. Nicholson, D. Thomson.

Final Fellowship Degree.

Certificate of honor, for standing in final branches. Candidates who obtained 75 per cent. and over :—A. C. Parsons, F. Fenton, R. V. Fowler, B.A., C. McPhail, J. W. Brien, H. B. Anderson, A. S. Tilley, R. M. Mitchell, and R. M. Curts. Class I. 70 per cent. and over—George K. McDowell, D. McEachern, H. L. Barber, J. J. Thompson, James G. McKee, A. P. Chalmers, H. J. Orchard and H. Morell. Class I. 60 per cent. and over :—A. M. Cleghorn, D. A. McPherson, A. Quackenbush, W. E. Ogden, Edward Blake Blain, E. O. Bingham, N. Anderson, A. L. Murphy, B.A., F. N. Henry, A. W. Allingham, and B. O. Coates. Passed—H. J. Denovan, E. W. Goode. Special prize for the highest standing in physiology for first year, value $25—Fred Parker, standing 95 per cent ; Dr. Ryerson's special prize given this year. For the highest standing in medicine and surgery taken together, value $25—Fred Fenton.

Scholarships.

The 1st first year's scholarship, $50, standing 471 out of 530 marks, J. C. Hutchison, B.A. The 2nd first year's scholarship, $30, standing 463 out of 530 marks, Frederick Parker. The 3rd first year's scholarship, $20, standing 459 out of 530 marks, Carlton Shaw. The 1st second year's scholarship $50, standing 420 out of 460 marks, A. L. Danard. The 2nd second year's scholarship, $30, 401 out of 460 marks, C. D. Parfitt. Medals —The second Trinity silver medal, standing 299 out of 360 marks, Richard Victor Fowler, B.A. The first Trinity silver medal, standing 302 out of 360 marks, Frederick Fenton. The Trinity gold medal, standing 307 out of 360 marks, Harold Campbell Parsons.

QUEEN'S UNIVERSITY.

H. R. Adamson, J. Adams, G. T. C. Adams, T. A. Balfe, A. E. Barber, W. J. Belton, Miss M. E. Bermingham, F. H. Bermingham, T. C. Bourns, J. Bisonnette, B.A. ; H. H. Denaut, H. E. Douglas, J. C. Gibson, W. G. Hare, Miss Mabel Henderson, Allison Jamieson, J. J. Kelly, B.A. ; J. Kirk, B.A. ; E. J. Lent, A. Lockhart, E. J. Melville, F. J. McCammon, B.A. ; R. R. Robinson, T. B. Scott, B.A. ; D. V. Sullivan, B.A. ; Miss Nellie Skimin, G. W. H. Smith, N. T. Stevens, Miss Agnes Turnbull, H. E. Tuttle, W. B. Thompson, J. W. Wheeler, Isaac Wood, B.A.

WESTERN UNIVERSITY.

Honors : Gowan, H. McDonald, McGregor, Gubbins, Shaw, Hughes, McGinnis, F. Fraleigh, McEwen, Burkholder ; Pass : Cook, Halliday, McGuffin, Patrick, Nixon, Hall, Wood, Johnson, F. Noyes, Parker, H. Noyes, Banting, McIntosh. Medals, Gold medal : H. F. McDonald ; silver: L. J. Gowan.

M'GILL UNIVERSITY.

G. A. Brunette, G. A. Berwick, J. E. Binmore, G. A. Bowen, B. F. Boyce, F. W. A. Brown, J. E. Brouce, D. A. Bruce, H. B. Carmichael, J. L. Chabot, R. J. Chipman, A. R. A. Day, C. W. Guilleston, R. F. Glendenning, W. C. R. Graham, H. A. Grant, Y. Halliday, P. O. Hayes, J. Hogg, H. J. King, F. A. Long, A. F. Longley, A. E. A. McCann, D. Y. McKay, J. E. McKenty, R. F. McKenzie, O. Y. McKinnon, H. A. McMally, A. W. Muir, C. F. Martin, T. H. Martin, W. B. H. Massiah, J. Peak, E. D. Phelan, B. E. Robinson. W. Rodger, W. H. Smith, W. M. Taplin, T. T. Taylor, J. N. Taylor, J. Thompson, A. S. Wade, W. E. Walker, W. G. Walker, H. G. Wasson, Honor list on final subjects : Jameson, Henderson, Massiah, Day, C. F. Martin, Wasson, Hayes, J. T. Taylor, Chabot, Chipman, Walker, Wade, Bowen, Berwick, Boyce. Prize list : Holmes' medal, Thomas Jameson. First prize, James Henderson.

BISHOP'S COLLEGE.

Final.—Wm. Burnett, Montreal ; John W. F. Purvis, Lynn, Ont. ; F. J. Hackett, M. Goltman, Montreal ; Ewing R. M. Brant, Georgetown, British Guina, South America ; Arthur J. Richer, Montreal ; Frank Sylvestre, Cazaville, Que. ; Alex. Blanchette, Worcester, Mass. ; Duncan Crevier, St. Anicet, Que. ; James L. Warren, Murray Bay, Que. ; S. W. Outwater, Plainfield, Ont.

Primary.—David Primary Silver Medal, W. E. Wilson ; Wood Final Gold Medal, J. W. F. Purvis.

GOLDEN RULES OF SURGICAL PRACTICE.— *Continued.*—(*Times and Reg.*) :— BONES.— Always hesitate to diagnose in an off-hand way "rheumatic" pain in young children. Remember acute periostitis simulates acute rheumatism closely.

Never delay in acute periostitis in cutting freely down to a bone as soon as the nature of the case is detected. Every hour of delay will need a month to repair.

Do not forget the three golden rules in acute periositis :

1. Prompt incision.
2. Free incision.
3. Free drainage.

Remember secondary abscesses may form in acute periostitis. Be on the *qui vive.*

Do not fret if, on making incisions to the bones, you evacuate but little pus in periostitis. It makes no matter, the relief afforded is often the same.

Remember the golden rules of removing segments from long bones after necrosis:

1. Do not wait for the periosteal sheath (new bony sheath) to have acquired strength enough to preserve the continuity of the limb.
2. Always remove the sequestrum as soon as possible, for it is:
   (*a*) A permanent source of irritation.
   (*b*) A danger to the adjacent parts.
3. Do not leave any dead bone behind.
4. Always splint carefully and bandgage to maintain the parts in apposition and prevent fracture.

Never forget that there is no periosteal sheath in the necrosis of the popliteal space, and that the exfoliated bone lies close under the popliteal artery.

In removing such avoid four things:

1. Joint.
2. Artery.
3. External popliteal nerve.
4. Rough manipulation.

Scratch with finger nail and handel of knife. Do not use the knife.

BREAST.—Never forget that a "tumor" in a young woman's breast is not usually a *chronic* abscess.

Never procrastinate about a tumor of the breast in a female over forty.

Never excise a mammary tumor of doubtful character before cutting it across.

Never remove a true carcinoma of the breast without clearing out the axilla.

Never be too anxious to make your flaps meet, and look well in removing a cancer of the breast. Your vanity will often tempt you to leave a flap in which cancer may lie concealed.

BURNS.—Do not neglect opium for the shock of burns in children, but use it cautiously; afterwards do not stint fresh air, food or warmth.

Never give a hypodermic in burns of children; you cannot recall it. Give it by mouth.

Beware of strong application of carbolic oil in burns, and if it be used at all, watch the urine for absorption signs.

Do not dress too often; but never let the dressings foul.

Never uncover the entire wound at once; do it piecemeal.

Never omit chloroform or opium in the first dressing of extensive burns.

Always have the tracheotomy instruments at hand in burns or scalds of mouth, because of œdema of glottis.

CHEST.—Do not be very solicitous in obtaining crepitus of a fractured rib. Treat it as such.

In manipulating either side of a fractured rib to obtain evidence of undue mobility, do not handle portions of two different ribs.

Never forget that all penetrating wounds of the chest, not involving fracture, should be closed at once.

Do not forget that it is a good practice in severe cases of fractured ribs, and those in which the lung is wounded, to strap the chest and apply ice externally.

[Bandage is said to be contra-indicated if there is much comminution or tearing of the parieties of the chest; or:

1. If dyspnœa increases, on its application.
2. If pain is caused by it.]

Do not strap or bandage if there is much surgical emphysema.

Always regard rib injuries in old people with anxiety.

[There may be, and usually is, pre-existing emphysema and bronchitis, which will hamper the breathing greatly.]

Never tap a chest in paracentesis without making certain, by auscultation and percussion, that you are on the right spot.

Do not neglect to secure your drain tube from slipping into the thorax. Let it be sufficiently, and only sufficiently, long to enter the cavity. Longer is needless.

Always use an exhaustion syringe in tapping the chest.

Never forget in this, as in all other aspirations, to run some carbolic or hydrarg. perchlor. solution through your canula and exhaustion bottle before operating.

Always use an exploring syringe first, if you are in doubt.

Do not forget your landmarks (upper border of lower rib).

Always remember that you aim at the lung rising up and taking the place of the fluid you evacuate. If the lungs are bound down by adhesions and attempts are made to exhaust the fluid with considerable force, rupture and hæmorrhage take place.

Do not forget, also, that too forcible a suction applied to the vascular false membranes, which often occupy the pleural cavity, may give rise to hæmorrhage into the pleura.

Always stop if pain is complained of.

(*To be continued.*)

LOSS OF SIGHT DURING LACTATION.—Mr. Nettleship, in the last number of the *Ophthal. Hosp. Rep.* (*Glasgow Med. Jour.*), gives several curious cases of loss of sight, in some cases amounting to blindness, during the period of lactation, from which amaurosis the patients recovered. The curious fact is, that in most of the cases ophthalmoscopic changes after restoration of sight are wanting. While pointing out that frequently during pregnancy there is loss of sight from retinitis associated with albuminuria, still no traces of such a condition can be seen in the cases under discussion. Nor does amaurosis after hæmorrhage explain matters, for that was not a feature in these cases. Nettleship attributes them to a neuritis which has subsided without leaving any permanent destruction of nerve fibre.

THE POSTURE OF THE PUERPERAL PATIENT.—Duke (*Med. Press. Am. Jour. Med. Science*), considers the usual custom of keeping the puerperal patient upon her back for a long time after labor to be most injurious. He claims that drainage of the birth-canal is least thorough in this position, and that retro-displacements of the uterus frequently result from this custom. He favors the semi-recumbent position upon the hip or the sitting posture for a few moments after the first twenty-four hours. These positions favor involution and promote the action of the bowels. The best posture to favor the delivery of the placenta is the prone position, and the puerperal patient should assume this posture for a short time daily.

A MILITARY MEDICAL ASSOCIATION.—It is proposed to form an Association of Medical Officers of the Militia of Canada, having the following objects: 1. The bringing of medical officers in closer personal relation, and the development of a departmental *esprit de corps*. 2. For discussion of matters relating to the Medical Department of the Militia. 3. For the discussion of military matters from a medical point of view. 4. For reading of papers on Military Medicine and Surgery, Hygiene and Equipment. A meeting for organization will be held in the Canadian Military Institute on Monday, May 9th, at 8 p. m.

ANTIPYRINE IN WHOOPING-COUGH.—Dr. E. Feer (*Ibid.*), believes that this remedy should have the first place in the treatment of whooping-cough. Eighty cases were under observation and the dose was in the proportion of that of fifteen grains for a ten-year old child, given morning and evening. When several children in the family were affected with this disease the results were not so good (mutual reinfection—Professor Hagenbach). The remedy was beneficial in four-fifths of the cases. It cannot be ascertained whether it acts as a germicide or as a sedative —very likely the latter, as Demme and Sée have proved that it has a direct restrictive influence upon the reflexes.

ANTIPYRIN TO DRY UP MILK SECRETION.—Guibert (*Archives de Tocolygie—Univ. Med. Mag.*) found incidentally that the administration of antipyrin, in doses of thirty grains a day, distinctly diminishes milk secretion by the second day. He tested the drug in nineteen cases. In seven cases the women nursed their children for several days, in the remaining cases not at all. Guibert found that in all cases the milk disappeared in several days.

SALICYLATE OF SODA IN PLEURITIC EXUDATION.—Dr. Oerl has, *Hosp. Gaz.*, *Med. Zeit.*, during the past five years, treated nine similar cases of pleuritic effusion with salicylate of soda, after other remedies, such as phenacetin, pilocarpine, etc., had failed, and with the exception of two instances the results were favorable. In these two the resorption was only partial. The author concludes: 1. Serous pleuritic exudations of long standing may be removed by the administration of the salicylate of soda. 2. The salicylate has in exudative pleuritis, just as in polyarthritis, an apparently specific effect. 3. The fact that, so far as experience with this remedy has gone, no new collection of fluid is observed, makes surgical interference in serous pleuritic exudation not only not imperative, but, indeed, puts operative procedures in the background.

COLLAPSE AND DEATH AFTER POST-PARTUM INTRA-UTERINE IRRIGATION.—P. C. Larsen reports the case of a woman who was in her third childbirth. After delivery and manual separation of the placenta an intra-uterine irrigation was made with a 3% solution of phenol, when the patient suddenly became collapsed and died in a few minutes. There was no rupture of the uterus but a mitral insufficiency.

TRINITY MEDICAL COLLEGE.—The summer session at Trin. Med. Coll. commences May 2nd, and will continue till July 1st. Drs. Meyers and Millman have been added to the staff of summer session lecturers.

We are pleased to note that Dr. C. A. Temple, late interne assistant in the Toronto General Hospital has been appointed surgeon to the *Empress of India*, one of the new C.P.R. steam ships, *vice* Dr. Gordon, invalided.

A German edition of the second revision of Gowers' book on the Nervous System has just been published by Cohen of Bourse, and we understand that an Italian translation is also nearly ready.

Books and Pamphlets.

A TREATISE ON DISEASES OF THE NOSE, and its Accessory Cavities. By Greville Macdonald, M.D., London. London and New York: MacMll an & Co., Toronto, Carveth & Co. Price $2.50.

The second editon of this excellent treatise upon Diseases of the Nose, and Accessory Cavities, has been received; and the fact that the first edition of this book was exhausted in a little more than a year, is sufficient to indicate that it was needed. Several additions have been made, among the most noteworthy being articles on croupous rhinitis, and cysts of the middle turbinated bone, which were imperfectly treated in the former issue. The chapter on nasal respiration, which commences the treatise is most thorough and scientific, presenting many new points for consideration, elucidating by practical experiments, many features of nasal breathing hitherto unknown, or shrouded in doubt. The classification of chronic rhinitis is excellent, and will do much to educate the masses of general practitioners into a proper comprehension of true hypertrophy of the turbinated tissue as distinguished from vascular tumefaction of the erectile bodies, an error into which many specialists have frequently fallen from want of proper consideration of the subject.

In discussing the etiology of nasal polypus, the author differs in his views from many observers, notably Woakes, who believes that polypus is always indicative of caries of the turbinated bones. McDonald holds this view erroneous, and we think correctly so. In the chapter on nasal neuroses, the author's views on idiopathic rhumorhœa, and hay asthma are given in a masterly manner, and from the large clinical advantages at his disposal, are entitled to the greatest possible consideration. Other parts of the work highly to be commended, are the chapters devoted to the study of chronic rhinitis as affecting the ethmoid bone, and diseases of the accessory cavities of the nose, including empyema of the antrum. On the whole, we are disposed to consider this work as one of the most complete and masterly expositions of nasal disease ever published, and take great pleasure in recommending its careful perusal to the general practitioner and specialist, who will find embodied within its covers the scientific views of probably the ablest rhinologist in Europe.

THE MEDICAL ANNUAL AND PRACTITIONER'S INDEX, 1882. Toronto agents: Carveth & Co.

This publication has been ten years in existence, and fills a place previously vacant in medical literature. The size of the volume is necessarily increasing year by year, as new facts are added to the store of medical knowledge. The compilation of matter contained in these volumes is done by experts, who boil down the various articles contributed during the year. The reference system to preceding numbers of the *Annual* makes the reading of the essentials of any case easy, and fairly complete. We commend the series and the 1892 volume to our readers as of much practical, every-day use.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE,
CRITICISM AND NEWS.

VOL. XXIV.] TORONTO, JUNE, 1892. [No. 10.

Original Communications.

THE ELECTRIC ILLUMINATION OF THE BLADDER.

BY G. S. RENNIE, M.D., L.R.C.P. LOND., HAMILTON.

Mr. Buck, of Breslau, a dentist, was the first to employ the platinum loop, maintained at a white heat, by means of the galvanic current, as a source of light for examining internal cavities of the body. He constructed a light for the examination of the mouth, and also one for the stomach, which were tried at the Vienna Hospital, but found to be unpractical.

In 1877, Dr. Nitze, of Dresden, had instruments made that could be used on the living subject to illuminate the urethra, bladder and larynx; but they were very much complicated, as they had to be fitted with a water cooling apparatus in order to reduce the heat of the platinum wire, and they also failed to give a strong light, as a quill was used for the window which soon became scorched with the heat. Dr. Nitze at a later date went into partnership with Leiter, an instrument maker of Vienna, and in 1879 they produced an instrument known as the Nitze-Leiter cystoscope. The illuminating power of this instrument was maintained by the heating of a platinum wire by electricity, and had as a consequence to be fitted with a water cooling apparatus. With it the bladder could be very well illuminated, but on account of the instrument being cumbersome, extremely complicated and high priced it soon fell into disuse.

In 1887, two cystoscopes, made on the incandescent light principle, appeared almost at the same time. The one designed by Dr. Nitze (who had quarreled with his partner Leiter), and the other made by Leiter, of Vienna.

These two instruments are nearly the same in construction, only the lamp of the Nitze cystoscope is unprotected, and cannot be separated from the rest of the instrument, so that when the carbon filament of the light is burnt through, it has to be sent to the Berlin instrument maker to be repaired. The cystoscope produced by Joseph Leiter, of Vienna, which I have here to show you, is a highly finished instrument, and perhaps a word about its construction would not be amiss. It is in shape very much like a calculus sound of a 22 French gauge. It consists of three parts: 1, the beak, 2, shaft, and 3, ocular end.

1. *The beak* is a hollow hood which can be screwed on and off the shaft, it has a long oval aperture covered in with a thin pane of rock crystal, which protects the incandescent lamp, and at the same time allows the rays of light to pass, and illuminate the cavity. The terminals of the lamp fit into two sockets which are in direct communication, by means of insulated surfaces, with the battery; by this arrangement when a lamp burns out, a fresh one can be rapidly replaced, and if a lamp glass should break it is protected from doing harm by the hood.

2. *The shaft* forms a hollow tube furnished with a system of lenses, for increasing the size of the object examined. Rays of light from the object under examination enter the windows, situated at the end of the elbow, are reflected by the prism closing the window, and passing through the stem of lenses are magnified and perceived by the observer.

3. *The ocular end* has two binding screws for the battery wires, and a switch for opening and shutting the current. The small knob on the rim serves to show the direction in which the beak is pointing and thus helps us to localize the position of the lamp and the window in the bladder. In 1889, Mr. E. Hurry Fenwick, of St. Peter's Hospital, London, made what he then considered an improvement on Leiter's instrument. He had a perforated hood made for the lamp, which allowed the fluid in the bladder to circulate freely around the lamp and keep it cool. But this has since proved not to be of any great advantage, and Mr. Fenwick now uses Leiter's instrument without his own modification. This cystoscope has one valuable addition made by Mr. Fenwick, which is the swivel at the ocular end, which allows the instru-

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*Read before the Hamilton Medical and Surgical Society.

ment to be rotated without allowing the wires of the battery to rotate with it and thus obscure at any time your vision.

The instrument which I show you was intended for the examination of the anterior part of the bladder, and another one, the same in construction only the window is on the posterior side, to be used for the examination of the posterior wall.

But practically the anterior instrument is all that is required, as with it all parts of the bladder can be viewed by rotating the instrument at will. It can be introduced into the bladder almost as readily as a calculus sound, but when in, it requires a great deal of practice and patience before one is able to rotate the instrument and examine a certain patch. Although we may become rapidly proficient in placing the light, it is otherwise in appreciating what is seen. A stone or tyipcal growth is readily recognized, but there are certain conditions of the mucous membrane which are most puzzling and require experience to determine their nature.

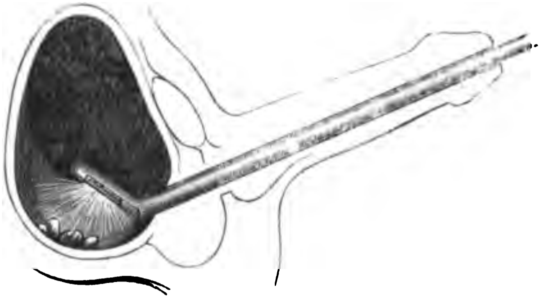

FIG. 1.—The posterior instrument as seen in position.

Before passing the instrument it is well to see that it is in perfect working order, and thus save a good deal of annoyance later. The bladder should contain, at least, four ounces of clear urine. If the patient has passed his urine lately, or if it contains pus or blood it will be necessary to wash out the bladder with a solution of boracic acid, and then inject about five ounces of warm water. Having made sure that you have five ounces of fluid in the bladder, you may introduce the instrument. See that the current is turned off first of all; a little glycerine is the best lubricant as it prevents murking of the prism. When the beak has been felt to have entered the bladder, you may close the circuit, and then at the ocular end you will perceive a yellowish-red glare. By gentle manipulation you will recognize the trabeculated surface of the bladder and the minute vessels which ramify in the mucous membrane, all illuminated with a bright white light, as clear as if seen by direct sun light. By rotating the instrument you will notice in the inferor zone, the orifices of the ureters. After a little practice one recognizes the conditions of a healthy mucous membrane. It is of a reddish-yellow or light straw color, with its surface bright and glistening and traversed by blood vessels of varied tints. When the base is illuminated you will see the trigone, which forms a beautiful object, reminding one of a sandy shore, so even and yellow is its surface. A little more posteriorly are placed the orifices of the ureters, situated upon elongated oval-shaped projections. In a healthy bladder it is not difficult to discover their slit-like openings, and if watched you will notice them to suddenly gape and a tiny swirl of fluid will be emitted. By withdrawing the cystoscope slightly, until the window is at the opening of the bladder, the urethral orifice can be searched. It is seen as a crescentric fold, blood red in color from the transmission of the rays of light through its vascular substance.

The cystoscope will show absolutely whether the disease is in the bladder or not; one can see out of which ureter purulent or bloody urine escapes. Hence we have a means of solving the question, which kidney is diseased, if there be but one affected. With it we gain a more thorough knowledge of the forms of catarrh and can watch its improvement under treatment, can diagnose ulcerations, tuberculosis, can see calculi, encysted stones, foreign bodies, vellous growths and tumors of the bladder.

Dr. Meyer, in "Annals of Surgery," says that the cystoscope has become an indispensable part of surgical equipment, and is for the bladder what the laryngoscope is to the larynx.

I am indebted for what knowledge I have of the use of the cystoscope, to Mr. E. Hurry Fenwick, of St. Peter's Hospital for Stone, London. He makes use of the instrument daily in his private and hospital practice, and has made many thousand cystoscopic examinations. He is most painstaking with his cases, takes complete notes of every examination, and if anything of interest is found he either makes a clay model of what he sees or has a photograph taken. Copies of some of his models I have here to show you.

The cystoscope has become a most valuable instrument for diagnosing bladder and kidney diseases. For the purpose of illustrating its utility in this respect, let us take, for example, a case of hæmaturia. As Mr. Fenwick remarks, "very often the evacuated urine contains no clue as to the source of the blood. The color of the hæmorrhage is deceptively variable, sometimes being of renal, sometimes of a vesical, type. In only a small proportion of cases does the microscope reveal the cause. Not infrequently bi-manual or rectal examination proves valueless in the localization of the disease, while the sound, evacuator, and lithotrite often afford only negative results. If the cystoscope be passed, you may detect a villous papilloma or other vesical growths which cause the hæmorrhage, the existence of which one may suspect, but which, without a cutting operation in the shape of a digital exploration, one often cannot absolutely diagnose to be present in the bladder. Or you may reveal a hæmorrhagic cystitis, a growth, a calculus, an enlarged prostate or an ulceration as the source of the hæmorrhage. If you find negative evidence of the hæmorrhage from an examination of the bladder walls, a close inspection of the orifices of the ureters will demonstrate at once the real source of the hæmorrhage if the blood be issuing from the kidneys; for if this be the case you will see the jets of bloody urine burst from the tiny opening of one or other ureter and the real source of the hæmorrhage will then be known. The cystoscope can either afford us a clearer insight into pathological conditions of the vesical mucous membrane, and enable us to watch the progress of the disease and the behavior of the same under varying forms of treatment; or it may allow us to control our clinical observations and speculations by direct visual research, and rightly to assign the more prominent symptoms to definite causes; or it may at once elucidate for us the cause of obscure symptoms of urinary disease, of which we otherwise could obtain no certain clue without a cutting operation.

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Dysmenorrhœa.

R.—Ext. stramoni,
Ext. hyoscyam, } āā . . . gr. vi.
Ext. opium,

M. Ft. Pills No. 12. Sig.—Take one pill every one to six hours, as may be needed, until relieved.

NOTES ON PUERPERAL ECLAMPSIA.[*]

BY BERTRAM SPENCER, M.D., M.R.C.S.E., TORONTO.

On Sunday, Oct. 18, 1891, I was called to see Mrs. P., about 20 years of age, six and a half months advanced in her first pregnancy, and who had suddenly, after symptoms of disordered vision, been seized with convulsions.

On arrival I found three other physicians, who had hastily been summoned, in the room, by one of whom the patient had been bled to the amount of 10 ounces Half a grain of morphia also had been administered hypodermically, together with inhalations of chloroform, and a gag had been placed between the jaws, to prevent laceration of the tongue by the teeth.

On passing a catheter into the bladder it was found empty, urine having been voided into the bed during one of the convulsions, of which, so far as I could gather from the husband, the patient had had three or four.

A second half grain of morphia was at once injected, and the membranes punctured with the catheter, and about two or three ounces of liq. amnii. escaping. At this time another convulsion, the first I had seen, seized the patient, which, though the chloroform was pushed, lasted for some minutes.

An attempt was now made to dilate the os with the finger, and, after much work and perseverance, I was enabled to introduce the tip of the index finger as far as the first joint. Beyond this point, in spite of prolonged efforts by myself and Dr. Scadding, who kindly relieved me for a couple of hours, it was impossible to produce further dilatation; the finger in the os giving the impression of being in the neck of a bottle, so rigid and unyielding did it appear. Two or three large enemata of soapy water and castor oil were given, in the hopes of producing an evacuation of the bowels, and of so relieving blood pressure, but with no effect; the enema apparently distending the rectum, but returning ineffectual at once. Glauber's and Epsom salts were then given every half hour, in concentrated solution, but also without producing the desired effect. Failing in our attempts to produce dilatation of the os with the fingers, an attempt was then made to accomplish this with graduated hard rubber bougies. The smallest size was passed, but, beyond this, no force that we dared employ, would ensure the passage of a larger one.

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[*] Read before the Toronto Medical Society, March, 1892.

During the afternoon the patient had two more convulsions; the chloroform which was freely administered having apparentely no effect in preventing or lessening the attack.

At five o'clock another half grain of morphia was injected and after much trouble, the smallest size of Barnes' rubber bags was introduced into the uterus, filled with water and left in situ; and the vagina carefully douched with bichloride 1 x 5,000 followed by carbolic acid 1 x 80.

Recognizing the importance of securing an alvine evacuations, a drop of croton oil with a few grains of sugar of milk, was given every hour for three hours, but without accomplishing the desired end.

The patient was kept pretty well under the influence of morphia all night by the administration of half a grain hypodermically every four hours, but was very restless and delirious, constantly attempting to get out of bed, and fighting against nourishment which, however, was given her in the shape of milk, every half hour, a few drops at a time from a medicine dropper. There was a good deal of difficulty in swallowing, the tongue having been bitten and being swelled in consequence. Vagnial douches of bichloride and carbolic acid were kept up.

Monday, Oct. 19th.—Not much change in the patient's condition; she was still restless, but kept more or less nacrotised by morphia administered every four hours. The bladder was relieved by the use of the catheter, and the urine, small in amount, on being tested, gave about 90 % albumen. Douche continued during the day; no movement of the bowels. At 5 o'clock the Barnes' bag having been in place for 24 hours, it was removed; the os then showing but little change, and still being smaller in circumference than a shilling.

There were signs now during the evening, of commencing uterine contractions, and as the bowels had never yet been moved, 10 gr. of calomel were administered dry; and towards morning this was followed by a very copious evacuation. The morphia was continued, the patient kept under its influence, and urine withdrawn by cathcter. The patient less restless, uterine pains coming on, but at long intervals; vaginal douches kept up three times a day.

Tuesday October, 20th. Patient not so restles or violent labor pains of short duration coming on; os uteri about the size of a silver dollar. Four ounces of urine passed, very cloudy and albuminous. Morphia and douches kept up. At 3 o'clock in the afternoon I was sent for, being told the patient was worse. On my arrival, however, so far from that being the case, I found the head presenting at the vulvar orifice and at 3.40 delivery of an exceedingly putred fœtus and placenta was accomplished. As soon after delivery as possible an intra-uterine douche of bichloride was given, followed by one of 1 x 80 of carbolic acid. Temperature 101½°, pulse 162.

4.30 Symptoms of severe shock set in; heart's action very weak and unsteady; gave ether sulph. ʒi. hypodermically, and brandy by the mouth under which the patient rallied.

6 p. m. Sleeping quietly, pulse 128; at midnight the temperature was 98°, pulse 104, still sleeping quietly; discharge odorless. 10 oz. of urine drawn off and tested; albumen still present but much less in quantity.

Wednesday, October 21. Slept quietly all night temperature 97⅗, pulse 84 at 7 a.m., vaginal douche of carbolic acid as discharge was becoming offensive. Large quantity of urine passed naturally; color, dark amber, small amount of albumen present.

From the 21st to the 25th the patient got slowly but progressively better, when spongy gums, sore mouth and fetor of breath gave warnings of ptyalism. Accordingly the injections of bi-chloride were suspended, a weak solution of carbolic acid only being used as a douche.

A wash of boracic acid and listerine for the mouth and a mixture of chlorate of potash internally soon relieved these symptoms. During the last three or four days very large quantities of pale urine have been passed, sometimes as much as 90 ounces per day. From this date convalescence, though slow, was uninterrupted. For seven weeks there was great weakness and lassitude, and at the next catamenial period the flow was very profuse, necessitating the administration of iron and ergot. Since then the periods have been normal both as to time and amount of the flow.

In the treatment of this case, two cardinal points were kept constantly in view. (1) Narcotization of the nervous centres, by the administration of large and repeated doses of another poison, namely morphine. And (2) the prompt evacuation of the contents of the uterus and consequent lessening of pressure upon the renal vessels.

This latter, owing to the rigidity of the os, we were unable to accomplish of ourselves, nature coming to our rescue at last, but not until some 50 hours had elapsed after the first convulsion.

The obstinate refusal of the bowels to act was probably due to mechanical obstruction by the gravid uterus, since a free and satisfactory evacuation took place as soon as uterine contractions had fairly set in.

The patient only regained consciousness on Thursday, the 22nd, having no recollection whatever of anything that had occurred between Sunday and Thursday morning.

Another point of interest was the excessive diuresis that occurred after delivery, nearly 100 ounces in the 24 hours being voided, whilst before that, only a few ounces of dark albuminous urine were secreted in the same time.

Milk was the only aliment allowed for a week, after that soups and jellies were added, together with port wine, from which latter the patient derived much benefit.

This, Mr. President, is merely the record of one case of eclampsia, transcribed from notes taken at the time, and of the treatment adopted in this particular case.

Probably every practitioner has his own favorite way of treating these distressing and so frequently fatal cases. I have given you an outline of that method which I believe to be the best, and which briefly is narcotize the patient and neutralize the action of uræmic poison.

Probably some will say, no one method of treatment will answer for every case, but each one should be treated according to its own particular circumstances. This I willingly admit, but the treatment by morphia seems to me to offer a better chance of recovery than by any other method alone. And as to chloroform, I cannot honestly say that I have ever seen a case where the convulsions were completely controlled, or even appreciably lessened by its use.

As to the pathology of puerperal eclampsia, I shall say but little. The subject was fully discussed before the British Medical Association last July, but no positive conclusion, says the *Med. Record*, was arrived at.

A recent number of the CANADA LANCET, quoting from the same journal, says: "The experiments of Dr. Blanc were cited (by Dr. Galabin, of Guy's Hospital) as indicating that in the urine of eclamptic patients, there is a specific bacillus, which, when cultivated, causes convulsions in some of the lower animals.

Dr. Blanc thinks that this bacillus causes not only the nephritis, but also the convulsions directly. Dr. Auvard's view that eclampsia is the result of a strike on the part of the organs of elimination, especially of the kidneys, no doubt represents a truth, but hardly goes deep enough to be called a scientific explanation.

The same may be said of the theory of Stumpf, that under certain circumstances, a nitrogenous substance of a toxoemic nature, it may be acetone or a closely allied body, is developed, which in its elimination, erritates the kidneys, and so causes a nephritis.

It seems that we do not, as yet, know more about the pathology of eclampsia than that there is some convulsive poison thrown into the blood, either through renal disease, or infection, or both. What then is the duty of the medical attendant towards such patients in regard to subsequent pregnancies?

The question will always be put to us whether the patient may not, at a future pregnancy, be subjected to a similar misfortune. That principaræ are more liable to eclampsia than multiparæ has been abundantly shown; still there can be but little doubt that repeated pregnancies tend towards progressive disease of the kidneys, such disease being that known as granular degeneration.

Bearing in mind the great danger to the life of a patient during an attack of puerperal convulsions, and the irremediable damage to the kidneys that may occur, are we not justified, not only in warning her of the danger she incurs by subsequent pregnancies; but also in the induction of premature labor, for the relief of a condition fraught with so much danger to the life and wellbeing of our patient?

Selected Articles.

MEDICAL MYTHS.

Among the many wise sayings accredited to Abraham Lincoln is the following: "You can fool all the people part of the time; you can fool part of the people all the time, but you can't fool all the people all the time."

A man who has been in the practice of medicine for a number of years might feel inclined to take exceptions to the truth of this statement. Nowhere does the credulity of the people seem so obvious as in the readiness with which a new and startling discovery in medicine finds acceptance among the, apparently, most enlightened. It is true that among a certain class, who view with a degree of skepticism, born of apathy or indifference, all that pertains to medicine, we may find exceptions to the rule. Yet, even among these, when the matter is brought directly home to them in the form of a personal affliction, skepticism gives way to eager credulity, whenever hope, from whatever source, is offered them. People are quick to believe what they *want* to believe, and reason and argument are alike useless in such cases. It is not among the ignorant and uncultivated alone that we may expect to find the credulous. All down the ages of history, charlatanism and medical buffonery have found their most ardent supporters and adherents among the cultivated classes. In support of this statement, I will adduce the example of the great Berkley, the most profound metaphysician and elegant writer of his age, who claimed for his tar-water: "A preparation made by stirring a gallon of water with a quart of tar—all the virtues of a panacea." According to him, "It would prevent small-pox, and was a cure for impurities of the blood, coughs, pleurisy, peripneumony, erysipelas, asthma, indigestion, cachexia, hysterics, dropsy, mortification, scurvy, and hypochondria." You will notice the last word of this wonderful list, hypochondria, which might, with a little more truth, have been made to begin and end it. Certainly a striking and sad instance of how foolish even a great and learned man may become, when he ventures to speak with authority on subjects of which he is entirely ignorant. Berkley was a great and good man, but in his effort to be humane, and to give the world the benefit of what he considered a great discovery, he made himself ridiculous. There is something quite *naive* in the following statement of the virtues of this water: "It is much to be lamented that our Insulars, who act and think so much for themselves, should yet, from grossness of air and diet, grow stupid, or dote sooner than other people, who by virtue of elastic air, water-drinking, and light food, preserve their faculties to extreme old age, an advantage which may perhaps be approached, if not equalled, even in these regions, by tar-water, temperance, and early hours." Bishop Berkley might well have learned and laid to heart that first and greatest of the aphorisms of Hippocrates, that "Life is short, art is long, the occasion fleeting, experience fallacious, and judgment difficult." There are many Berkleys in the world, men, and women, too, whose cultivation and intelligence none would care to dispute, who imagine that the positions of prominence which they occupy entitle them to an expression of their views on matters outside their field of observation. It would be well for many to remember the fable of the two asses, one of which was laden with bags of salt, and the other with a cord of wood. They came to a stream, and the ass with the burden of salt bags entering the stream, the salt was quickly dissolved, and the ass came out relieved of his load. He then counselled the other ass to do likewise, but the wood absorbed the moisture, and, the load becoming too heavy, the poor ass sank beneath it and was drowned. The moral of this fable is obvious, and shows the danger of making too wide an application of a single experience. It is this tendency of the human mind, to argue from insufficient data, to deduce erroneous conclusions from false hypotheses—in other words, to be illogical; that is the greatest stumbling-block in the way of the progressive thinker in medical or any other field of science.

How many hundreds of years ago medicine might have evolved from the uncertainties of purely speculative philosophy to the dignity of an experimental science, but for the trammels to which it was subjected from the ignorance and superstition of mankind, it is hard to say. Certain it is, that over two thousand years ago there lived a man of such profound insight into the laws of nature, and knowledge of mankind and his diseases, that such of his works as have been preserved to us, may be, and *are*, still read with profit. This was the divine Hippocrates, the father of medicine, and even his great name must come down to us with the smirch of charlatanry upon it, for it is reported that, among his other great works, he cured King Perdiccas of Macedonia of love-sickness. The immortal Galen, the greatest anatomist until Versalius, unless it be Aristotle, that ever lived, owed his fame as a practitioner in Rome to the success of a certain remedy, a sort of cure-all, of which he was the discoverer.

It is this great eagerness on the part of most people to be humbugged, a trait not confined to the American people alone, but to all the descendants of mother Eve, that has made charlatanry the vice of otherwise exalted characters. Man can not live on the revelations of science alone, and unless there be some practical application of such knowledge, "*quid bonum*" cries the *vox populi*, and will have none of it. Even the great

Kepler was forced to depend upon the income derived from his fame as an astrologer to aid him in the pursuit of his astronomical studies, and excuses the deception in the following words: "Nature, which has conferred upon every animal the means of subsistence, has given astrology as an adjunct and ally to astronomy." If, then, through the pages of medical history we are confronted only too often with the spectacle of a noble art prostituting itself to vulgar needs, what else can we expect? The progress of medicine as a science is so indissolubly united to the intellectual progress of the human race, that it is a sad commentary upon the intelligence of a person who attempts to cast reflections upon its achievements. Will the same persons who deny a place to medicine in the scientific world, also deny that whatever is to be learned of the diseases which attack the human body must be studied in their effects upon the human body? Do these same people realize that all the knowledge that the world possessed of the structure of the human body, until Vesalius, in the sixteenth century, chanced the perils of the hangman's rope to make human dissections, was purely deductive, and derived from the dissections of the lower animals? And that morbid anatomy was for the first time systematically studied by Morgagni nearly a century later? Have these same people, who attempt to belittle the greatest, because the most comprehensive, science that has ever engaged the attention of man, been able even to rid themselves of the foolish sentiment which makes even the contemplation of the dissection of the human body a horror? It is this unwillingness on the part of mankind to consider the true relations of medical science and practice that enables the charlatan who evolves his ideas of disease from his inner consciousness, and deduces from them an absurd and fantastic system of treatment; to prey upon their credulity and offer them hope of cure, when death is inevitable.

We have passed the dark ages of speculative philosophy in medicine. No longer is it possible for a man to advance a chimerical theory of disease, and not be silenced by the forceable arguments or deserved contempt of those competent to judge of its merits. Medicine is, in its broader sense, not the mere treatment of disease, but in the knowledge of its nature, its causes and its effects upon the body, a science founded on accurate observation and rational deductions. If the application of this science in the treatment of disease often falls short of what we could wish, is it not possible to object that there is that in the nature of certain diseases that defies treatment? But the people will have nothing but a cure, and if Dr. Science can't do it, why it will at least do no harm to try Dr. Assurance. It may interest us to consider for a few minutes some of the many delusions which have from time to time obtained more or less credence or support. It may be well to say that during medieval times, in fact, up to the days of modern medicine founded upon pathological research, we could hardly expect to find anything like a scientific theory of disease, when all conclusions in regard to its nature must have been reached through speculative philosophy having no premises worth considering. The old humoral pathology, founded upon the belief that the body was made of humors and solids, and that various changes in their proportions constituted disease, was about as satisfactory as the modern teachings of Christian Science, namely, a mere play upon words. Notwithstanding the unsatisfactory state of medical science at this early date, we are still prepared to declare that medicine was abreast of the times. Francis Bacon, who *might* be considered at least a fair example of average intelligence, gravely considers as to whether he is altogether prepared to endorse the weapon ointment. This belief in the efficacy of the so-called weapon ointment was one which prevailed so widely that we find frequent references to it in literature. Dryden refers to it in his review of the "Tempest," and Scott in his "Lay of the Last Ministrel." The cure consisted in the application of an ointment to the weapon which caused the wound, while the wound itself, after washing and bandaging, was let alone. The astonishing success of this treatment was attributed very much in the same way to the ointment applied to the weapon, as some surgeons to-day attribute the success of aseptic surgery to the number of noxious and vile smelling drugs, which, after cleansing the wound, they may see fit to use in the bandages. In neither instances has the thought, that perhaps the success of the treatment was due to cleanliness and non-interference, seemed to dawn upon the minds of the enthusiastic advocates of either method.

Another of the humbugs which for a time served to delude prince, poet, and peasant, was the so-called sympathetic powder, introduced by Sir Renelin Digby, cotemporary with King James I. and his son Charles. Sir Renelin obtained this powder at the price of a great service from a friar in Florence, who, in his turn, had brought it from the East. It will be invariably noticed that humbugs are imported—far-fetched and dearly bought. This powder had the wonderful power of curing a wound when applied to the garments of the person injured. When you come to think of it, this way of using the powder was a most ingenious idea. When any one was too severely injured to admit of delay, a scrap of clothing could be carried to the possessor of the powder, and the cure be in progress and the fee collected at once. In a day when travelling was poor, and remittances by mail were unknown, the advantages of this method of treatment were too obvious to require argument. King James and Charles I. both learned the secret and application of this powder, but alas, the little operation which the latter underwent at Whitehall, was too severe a test of the efficacy of the cure. Another remarkable cure was born in the brain of a man who, in the early half of the last century, first saw the light in the State which has since produced the wooden nutmeg. His discovery was, as is usual in such cases, the result of many years of patient investigation, which had at last been crowned with deserved success; a success which was not founded upon mere assumption, but on the results obtained in thousands of cases cured by its means. Hereto a list was appended of certificates from clergymen and other learned people equally competent to judge of its value, as proven by their individual experience in its employment. The principal involved was a practical application of the newly discovered theory of galvanism, and the means employed was a pair of what the discoverer was pleased to call *metallic tractors*. These tractors consisted of two pieces of metal, one of which was brass, the other apparently iron. By virtue of some peculiar action upon the animal fibre, these tractors are warranted to cure anything from the spleen to a dog-bite, by passing them gently over the surface of the body, very much the same way, I suppose that some of our medical brethren do with the electrodes of a $1,000 stationary battery. The advantage, from the practitioner's standpoint, is rather in favor of the metalic tractors for Dr. Perkins, the discoverer and patentee, was enabled to dispose of thousands of his tractors, which cost at the most sixpence, for a guinea a pair, while the electrical specialist is sometimes at great pains to realize a decent interest from the capital invested in his ponderous machine. Perkinisim, for the sucess of treatment by the metallic tractors was such that it soon aspired to the dignity of a new school of medicine, has so thoroughly disappeared in the darkness of oblivion, that I doubt very much if a pair of metallic tractors were to be be resurrected from the rubbish of some colonial attic, whether there could be found an antiquarian to-day who could tell what they were.

But the world is never left long to mourn the death of a great folly. New ones are constantly being born to fill their places. Like the poor, we have them always with us. Among the strangest of such follies is one which has survived the fickleness of several generations of man. This fact alone is sufficient, in the minds of its supporters, to entitle it to a place in the consideration of scientists. Yet, strange to say, it has never been accorded standing-room in the halls consecrated to science. The argument that its age is proof of its merits might, with equal force, apply to spiritualism, or to some of the many great religious faiths, which, for centuries, have numbered their votaries by millions, and finally faded, like a mist, in the bright sunshine of intellectual enlightenment. This particular folly owed its origin to the ingenious speculations of one Samuel Hahnemann, who, by some of his enthusiastic disciples, has been called, with questionable taste, the "Messiah" of medicine. Now, in criticizing the theories taught by Hahnemann, I shall have occasion to say much that may be offensive to the ears of many who still profess to adhere to a system founded on his teachings. If such are to be offended, I beg leave to say that in a spirit of fairness and justice, I shall state nothing, the truth of which is not vindicated in the works of this man, or those who who see fit to be called his disciples. If any statements are made which seem too ridiculous to be credible, I shall simply refer all such as doubt their truth to the works in question. In the first place, to give a short biography of this wonderful man. He was born in Germany, in 1755, and died at the advanced age of eighty-seven; his longevity, according to some, being a very strong argument for the truth of his theories.

These doctrines are set for in his "Organon" and "Treatise on Chronic Diseases." The first of these doctrines is that expressed by the Latin aphorism "*similia similibus curantur*, or like cures like; that is, that diseases are cured by drugs capable of producing symptoms similiar to those produced by the disease itself. Hahnemann further teaches that disease is not an entity, but a spiritual essence or *anima*, and should be recognized, not by physical signs, but by a collection of symptoms; that these symptoms are the disease, and that the disease is to be cured by the administration of medicines which would of themselves produce similar symptoms in a healthy person. Moreover, that medicines are most effective in what is called their highest potency, or, in other words, in infinitesimal dilution. Now, at the risk of boring you, but in order to justify what I shall have to say in regard to the influence of this man and his teachings, I would like to call attention to the rules laid down in his work on chronic diseases, for preparing his dilutions: "A grain of the substance (if solid) to be employed as a cure, a drop, if it is liquid, is added to about a third part of one hundred grains of sugar of milk, in an unglazed porcelain capsule, which has had tke polish removed from the lower part of its cavity by rubbing it with wet sand; they are to be mingled for an instant with a bone or horn spatula, and then rubbed together for six minutes; then the mass is to be scraped together from the mortar and pestle, which is to take *four* minutes; then to be again rubbed for *six* minutes. Four minutes are then to be devoted to scraping the powder into a heap, and the second third of the hundred grains of sugar of milk to be added. Then they are to be stirred an instant and *rubbed* six minutes, again to be scraped together four minutes and forcibly rubbed six; once more scraped together for four minutes, when the last third of the hundred grains of sugar of milk is to be added, and mingled, by stirring with a spatula; six minutes of forcible rubbing, four of scraping together, and six more (positively the last six) of rubbing, finish this part of the process.

Every grain of this powder contains the one-hundredth of a grain of the medicinal substance, mingled with the sugar of milk.

If, therefore, a grain of the powder just prepared is mingled with another 100 grains of sugar of milk, and the process just described repeated, we shall have a powder of which every grain contains the hundredth of the hundredth, or the ten thousandth part of a grain of the medicinal substance. Repeat the same process with the same quantity of fresh sugar of milk, and every grain of your powder will contain the millionth of a grain of the medicinal substance. When the powder is of this strength, it is ready to employ on the further solutions and dilutions to be made use of in practice. A grain of the powder is to be taken, a hundred drops of alcohol are to be poured on it, the vial is to be slowly turned for a few minutes, until the powder is dissolved, and two shakes are to be given to it.

On this point I will quote Hahnemann's own words: "A long experience and multiplied observations upon the sick, lead me, within the last few years, to prefer giving only *two* shakes to medicinal liquids, whereas I formerly used to give *ten*." The process of dilution is carried on in the same way as the attenuation of the powder was done: each successive dilution with alcohol reducing the medicine to a hundredth part of the quantity of that which preceded it. In this way the dilution of the millionth grain of medicine contained in the grain of powder operated on is carried successively to the billionth, trillionth, quadrillionth, quintillionth, and very often much higher functional divisions. A dose of any of these medicines is a minute fraction of a drop, obtained by moistening with them one or more little globules of sugar, of which Hahnemann says it takes about two hundred to weigh a grain.

As an instance of the strength of the medicines prescribed by Hahnemann, I will mention carbonate of lime. He does not employ common chalk, but prefers a little portion of the friable part of an oyster shell. Of this substance, carried to the sextillionth degree, so much as one or two globules of the size mentioned can convey is a common dose. But for persons of very delicate nerves it is proper that the dilution should be carried to the decillionth degree. That is, an important medicinal effect is to be expected from the two hundredth or hundredth part of the millionth of the millionth of the millionth of the millionth of the millionth of the millionth of the millionth of the millionth of the millionth of the millionth of a grain of oyster shell. This is only the tenth degree of potency, but some of his disciples profess to have obtained palpable effects from much higher dilutions. As to Hahnemann's theory that all diseases, of whatever nature, were due to *psora*, or, in other words, the *itch*, we shall have nothing to say, except that such of his disciples as had the hardihood to question it, were violently denounced as apostates from the faith.

I have endeavored in this brief description to outline the teachings of the man whom his descendants of to-day are content to honor as the father of their school. If among these there are some, and we know there are, who no longer adhere to homeopathy in its purity, who, in their own words, practice "*both ways*," they are apt to be pointed out as examples of great liberality, and the regular physician who refuses to consult with them is called intolerant. Did any one ever hear of a regular physician who thought it necessary, or considered it worthy of the man of science, to affix a *pathy* of any sort to his name in order to inform the people that here they could find a special kind of cure which they had not yet tried! Homeopathy is beginning to take some of its own medicine; people who were formerly its firmest advocates are beginning to worship false gods; always on the alert for something new they are successively trying the faith cure, vitapathy, or Christian science.

It is a trifle amusing to hear a person who has been pinning his faith to the decillionth of a drop of moonshine, wondering at the credulity of a less enlightened individual who has given himself into the hands of a Christian scientist. Now, Christian science teaches that there is no such thing as disease; that we only imagine sickness; that there is no such thing as contagion; that all the symptoms which we consider the result of disease are simply due to being out of harmony with the Creator, and that if we have faith we can demonstrate (I believe that is the term) ourselves into a condition of health. Absurd as this theory seems to us, it is hardly more so than some of the teachings of Hahnemann. Like him, they base their conclusions on the fact that of a certain number treated in this way some get well.

When will the people learn, and physicians teach, that there are a large number of diseases, particularly infectious diseases, which have as distinct a natural history of their own, if *let alone*, as the minute vegetable organisms which cause them? It is our duty as physicians to put ourselves in the proper light before the people, to teach them something of the nature of disease. It is the desire on the part of ignorant physicians to pose as miracle-workers, to prate of cures, that fosters ignorance and renders their patients ready prey to impositions of all sorts. We can afford to be charitable to the ignorance of others when we stop to consider how little we know, how much there remains to be learned. It will not do for us to disregard the fact that sham and pretension too often masquerade in the garments of science. We are only too often reminded of the astonishing credulity or shameful unscrupulousness of those of our own profession who are constantly lending their names as indorsements to drugs of unknown or questionable value.

Can we wonder at people turning in despair to homœopathy, Christian science, or any other humbug, when they have been dosed by some unscientific and ignorant regular with every nauseous mixture in the pharmacopœia? Is it not often the mere rest, and cessation of making laboratories of their stomachs, that is the secret of recovery? Not that I would belittle the value of drugs, but that I simply deplore the frequency with which they are irrationally employed. The great English physician, *Graves*, who wrote his own epitaph, "He Fed Fevers," condensed into those words the philosophy and wisdom of a life-time.

What shall we say of those scavengers, those hyenas, who prowl about the laboratories of science, eager to seize upon stray ideas which they may utilize in the realization of their own sordid ambitions; who demonstrate to admiring friends the wonders of bacteriology, and straightway rush into print with some impossible agent of destruction to a hitherto incurable disease? As long as the medical journals of the day continue to give commendatory notices to secret nostrums without attempting to investigate their nature or merits, can we wonder that discredit should be reflected on the profession which subscribes to and sustains them? When medical men permit the secular press to publish and magnify their exploits, can they wonder that the public fails to discriminate between the regular and the advertising charlatan? I would not imply that there is connivance in all such publications, for an unscrupulous and sensational press, which does not hesitate to invade the sanctity of the home, also claims for itself the privilege of sending its emissaries into the wards and operating-rooms of our hospitals, and under the pretext of protecting the people's interests gathers in a chapter of horrors with which to satisfy the vulgar curiosity of the mob. With such an existing state of affairs, even the most modest and retiring of men must be powerless to prevent the notoriety which attaches to a position in a public institution.

If there be any argument which can be advanced against democracy, it is the lack of fostering protection to the sciences. When every effort in the direction of the higher education of the profession and the suppression of quackery is met with the open hostility of a press which, while professing to educate, panders to all that is base and degrading in its readers, how can we expect to obtain control in all that pertains to the sanitary welfare of the nation?

In a day when creeds are being shaken to their foundations, when, as Dr. McCosh says, "the heterodoxies of yesterday become the orthodoxies of to-day," is it any longer possible for sectarianism in medicine to exist? Does not the multiplication of schools tend to subvert the best interests of the profession at large? Is the regular profession maintaining an attitude of intolerance when it refuses to recognize the various new sects which from time to time spring up, and, without any claim to scientific acquirements, demand representation in the hospitals on the strength of a certain degree of popularity and the support of a few biased and partisan adherents? Is not the acknowledgment of a creed in medicine a stultification of all scientific pretensions? "Creeds," as an eminent divine has said, "are but the husks of belief." Because scientific medicine recognizes the fact that cold water is often an effective agent in the treatment of disease, does it assume the name of hydropathy? Because it recognizes the fact that a drug may occasionally produce symptoms similar to those of certain diseases, and that frequently repeated small doses of medicine are often as efficient as a single large one, does it make a universal law of a few isolated and irrelevant facts, and adopt the name of homœopathy? Because it is in the broadest sense of the word eclectic, choosing the best of all that science reveals te aid it in the knowledge of disease and its treatment, need it claim special recognition as a distinct school on that account? No! far from being intolerant, the truly educated man of to-day deplores the necessity which forces him to assume the attitude which he is in conscience bound to assume towards the irregular schools. It would be as silly to conceive the existence of two schools of astronomy, one adhering to the Ptolemaic system and the other to the Copernican. If there is any progress to be made in medical science in this country, it must receive the undivided support of the people, and as long as this support is to be diverted into as many channels as there may arise sects in medicine, the outlook is gloomy.

There is, however, one ray of hope that comes to us in contemplating the future of our art, and that is that the more educated and enlightened of every sect will come gradually to the realization of the fact that adherence to medical creeds is as inimical to the welfare and success of the science of medicine as sectarianism in religious belief is to the unity of the human race. In the millenium of medicine the grotesque monsters of medical dogma will have ceased to exist, and will only be utilized in the manner of the paper dragons of the stage—to recall a fabled and mythical past.—Prof. C. E. Caldwell in *Cincinnati Lancet-Clinic.*

ONE HUNDRED AND FIFTY CIRCUMCISIONS, AND THE LESSONS THEY TEACH.

Unlike David, coming to Saul with the captured Philistines, I do not bring to you two hundred prepuces as evidence that I have slain that number of Christians.

The earliest mythological information we have is upon Osiris's return to Egypt. He found that Typhon had caused great dissension among the Egyptian people. Typhon dismembered Osiris and cut him into fourteen pieces, giving to each of his followers a piece, he himself securing the phallus. Isis, the spouse of Osiris, by some intrigue, came into possession of the government, and having secured all of the pieces except the phallus, which Typhon had cast into the sea, caused many statues to be erected, each of which was to contain a piece of Osiris, that he might be worshiped as a god.

The phallus was ordered special worship, hence the phallic worship and the sacredness of the white bull Apis of the Egyptians, which was chosen to represent Osiris.

The Biblical history is found in Genesis xvi: "This is my covenant betwixt me and you, and thy seed after thee, every man-child among you shall be circumcised, and ye shall circumcise the flesh of your foreskin, and it shall be a token of the covenant betwixt me and you."

It is said that Abraham was the first to make the operation, having first operated upon himself, upon his son, and then upon his servants, four hundred in number.

The Egyptian Pyramids are the third source of our historical knowledge of this performance, they dating us further back than Rameses II. Being a firm believer in the theory of the origin of the human race being in the western world, I must say that these pyramids indicate that the custom of circumcision was practiced long before their existence, as indicated by some of the explorers of Yucatan, who state authentically that the operation was made some twelve thousand years ago. The various tribes of the North American Indians have practiced the custom for many generations, and we find that it is the custom with the Abyssinians, Arabs, and Hottentots, the latter circumcising the females also. The Australian and African cannibals consider the flesh of the circumcised finer and more delicious for this reason, and offer greater compensation for the capture of males who are divested of their prepuces.

The custom seems to have been adopted by the Jews about six thousand years ago, and does not seem at any time to have lost its popularity. However, my object is not to enter so much into the history of this custom, and kinds of operation adopted by the various peoples of different countries, as to speak of a few of the 150 operations I have made during the last ten years.

First, I would like to speak of the indications for this operation, they being divided into local and systemic:

Local Indications.	*Systemic Indications.*
1. Hygienic.	1. Onanism.
2. Phymosis.	2. Seminal emissions.
3. Paraphymosis.	3. Enuresis.
4. Redundancy.	4. Dysuria.
5. Adhesions.	5. Retention.
6. Papillomata.	6. General nervousness.
7. Eczema { acute. chronic.	7. Impotence.
8. Œdema.	8. Convulsions.
9. Chancre.	9. Hystero-epilepsy.
10. Chrancroid.	
11. Cicatrices.	
12. Inflammatory thickening.	
13. Elephantiasis.	
14. Nævus.	
15. Epithelioma.	
16. Gangrene.	
17. Tuberculosis.	
18. Preputial calculi.	
a Hip-joint disease.	
b Hernia.	

Higienic.—I have made many operations for eczema (both acute and chronic), balanitis, posthitis, and balano-posthitis, all of which are attributable to uncleanliness. These conditions may be the result in the most fastidious.

About 20 per cent. of those I have made, both in childhood and adult life, have been for phymosis, while 5 per cent. would be the proportion of those for paraphymosis, conditions for which the operation should always be made; also for that of redundancy, which constitutes about 20 per cent. (By redundancy, I mean where the phallus more than covers the gland.

Œdema from any cause, or in any degree, should not prevent the removal of the prepuce.

In cases of chancre (Hunterian) I think that it is our duty to always remove them by a complete circumcision when their removal can be accomplished in this manner, as it has been fully demonstrated that excision does in a few cases prevent, and in many more mitigate, the severity of the disease.

In cases of chancroid, I sometimes hesitate if they are several days old. However, I have removed several by complete circumcision, after destroying as thoroughly as possible the diseased tissue with a red-hot iron. This may be successfully accomplished without pain if two or three grains of cocaine be injected into the prepuce five minutes before the operation. In one case, I did not meet with success, owing, perhaps, to my inexperience in the use of the actual cautery.

Phagadenicæ developed, and almost denuded half of the organ, so that much time was lost and pain endured in granular healing, erections being the cause of pain.

Papillomata should always be a cause for the operation, especially when the prepuce cannot be retracted. The moistened condition is always favorable to the development of such growths. If the prepuce cannot be retracted, owing to these growths, as is the case with the soft chancre, the lateral incision should be made and the flaps allowed to care for themselves. In this way the glans may be thoroughly cleansed at frequent and regular intervals. After the storm has passed, and the tissues are free from the possibility of infection, the flaps may be removed by a secondary operation.

The result of many hard and soft chancres is contraction of the prepuce to such a degree that it cannot be retracted. The *cicatrices* in these cases can only be treated by an operation.

Inflammatory thickening demands in almost every case the Cloquet operation, as does elephantiasis, also. The latter, however, is very rare.

Nævi, when upon the prepuce, should receive the same treatment.

Epithelioma, in the majority of cases, has progressed to such a degree that the glans has become involved, but when this is not the case immediate and radical circumcision should be made. I think that many of these cases of epithelioma can be entirely cured, like epithelioma of any other part of the body, if excised in its earlier stage of development. Why not?

Gangrene does its own work, as a rule, but should there be an irregular border it would be best to make it symmetrical.

Tuberculosis is not infrequently found upon the foreskin, showing that, like venereal lesions in general, it may infect any portion of the body where an abrasion exists. In point of fact, I think any lesion upon the prepuce demands its immediate removal.

Prepucial calculi are not so frequently found among our people as among the Chinese, who are proverbial for the great number and enormous size of these calculi. They are not allowed to become so large among civilized people, but whenever found should be removed by means of the operation.

Onanism many times is due to an irritable glans, caused by the accumulation of smegma and urine salts, especially with children, and once the habit is formed it does not matter what is done, the habit will continue to a greater or a lesser degree. In consequence thereof, I always advise and make the operation.

Seminal emissions, as a rule, are diminished 75 per cent. in frequency by this operation alone. I have never seen it fail to benefit patients suffering from this trouble.

Enuresis, dysuria, and retention are invariably benefitted, if not cured, in childhood, by removal of the foreskin.

General nervousness, where no cause can be assigned, is frequently due to penal irritation, and many times have I seen great relief given, and in a few cases a cure brought about, by this simple operation.

Impotence I find very much benefitted by the operation. I also find that in some cases the mental effect is good, that alone with a few justifying the operation.

Convulsions I have found to be in several cases due to a tightened, adherent or an elongated prepuce. My experience has taught me that immediate relief can be given by the operation.

Hystero-epilepsy I think is a result found in girls and boys alike. No girl or boy baby should be allowed to become one month old without a thorough examination of the genitals having been made. In many of these cases in girls, or even women, adhesions, growths, or malformations are the source of the irritation, and should receive immediate and radical attention.

I do not mean to report in detail all of the operations; merely those which I think will be of the greatest interest—those which have afforded me more information upon this subject than all that I have read.

I wish to say right here that I make it a rule to remove the prepuce in every case of gonorrhœa I treat. This is one of the requirements that I make. If this is done no complication with the phallus will arise. Cleanliness can better be secured and more perfect drainage obtained, which surely lessens the possibility of cystitis and orchitis.

REPORTS OF CASES.

A. is twenty-nine years old, and was circumcised at the age of ten years by the family physician, who removed the prepuce by twisting a wire upon it, actually tearing the skin asunder, claiming to the patient that he was afraid of fatal hemorrhage if he did otherwise. The result was that the inner skin became adherent to the glans throughout its entirety. After injecting three grains of cocaine into the adherent tissues, above which was a light rubber band, I removed enough skin to bare the glans, which was cauterized, so as to prevent the reuniting of the surfaces. A good recovery ensued, leaving the glans entirely bare.

B., aged forty-eight years, fair habits except excessive venery. Impotence for two years. Cocaine; removal of an elongated prepuce eighteen months ago; condition improved 75 per cent.

C., a widower fifty-four years old, impotent and much debilitated from constitutional causes (syphilis); no erection for ten weeks; circumcision with cocaine and Cloquet method; improvement marked. I find in such cases as these the condition most favorable for the operation, and I now never hesitate to perform it, leaving the glans entirely bare.

D., three years old, occurred eighteen months ago. I was called, and found the boy in convulsions. Upon examining the penis, found that the prepuce could not be opened. Upon questioning the parents, I found that the child cried, and at times screamed aloud, upon attempting to urinate. I made the median incision, finding one-half of the glans adherent to the prepuce. The child rallied from the anæsthetic (chloroform), and has remained free from any further attacks, he having had these convulsions since six months of age.

E., nine years old, nervous and hysterical; prepuce much elongated, and so tight that it could not be retracted. Cocaine, operation, and recovery. His mother states that he is perfectly well, and free from any trouble whatever.

I should also like to refer to a female case which I examined last summer. The child had trouble in urinating, and an examination revealed an almost similar condition as reported by Remondino. This case shows us that it is of great importance to examine females, as well as males, as soon after birth as possible.

A thin membrane was adherent to the clitoris, extending from the urethral meatus in such a way that the urine did not pass directly outward, but upward, a distance of an inch or more, and then out. In other words, a false channel had been formed. This was freely opened, and all of the excessive nervousness disappeared.

Now that I have gone over a few of these cases, I should like to speak of the kinds of operations. The greatest number I have performed were after the Cloquet method. Each case, it seems to me, is a case of itself. There is no rule. If the phallus is long, perhaps an incision would be sufficient. I generally make three cuts, and then sew up the wound. I sometimes cut the bridle, but seldom have hemorrhage. If the skin is short, all that is necessary is a median incision. If the prepuce covers the gland, it is necessary to make three incisions. In a case of papillomata, I can find nothing better than making three incisions. We have a general complaint that the operation is annoying. I wish to state that all operations are more or less annoying. As to the sutures in sewing the wound, would say that I now always use the catgut suture. I was under the impression, formerly, that silk was better than any other, but I have gotten over that. My dressing is generally a dry one, and I allow it to remain a week. I do not apply a wet dressing, because it is apt to cause an erection. If this should occur, tearing the stitch out, there is a way of bringing the skin back, covering it, and sewing it together. I usually take a stiff piece of paste-board, cut a hole in it, press it down upon the glans, and secure with adhesive straps. I feel confident in stating that there are not enough of these operations performed. No child should go unexamined, as this is one of the greatest annoyances of infancy.—*B. M. Rickets, in Cincinnati Lancet-Clinic.*

THE NATURE AND FREQUENCY OF INEBRIETY, WITH REMARKS ON ITS TREATMENT.

In the past year there has been an enormous interest shown in the subject of inebriety, especially in lay circles and the public press. This interest has centered upon two things—the treatment of inebriates and the question of the physical basis of drunkenness and intemperance. The view that these conditions are the expression of a disease has been exploited without contradiction until the public has perhaps begun to believe that alcoholic indulgence is always something of which persons are simply the unfortunate and irresponsible victims.

The purpose of this paper is to make a brief contribution to the subject of the nature and characteristics of inebriety as distinguished from drunkenness, and to its frequency, to which I shall add a few words on the subject of treatment. My remarks will be based largely on a study of the cases of alcoholism, in all its forms, which are brought to Bellevue Hospital, numbering nearly four thousand yearly. Three years ago I made a clincal analysis of the cases, which entered the hospital in 1889.

Recently I have made a study of 614 cases of male alcoholics entered in the last part of the year 1891. In these latter observations I made particular inquires as to the drinking habits and ancestry of the patients. These cases represent persons from all walks in life, the proportion being about as follows:

	Per cent.
Professional	3
Clerks	15
Tradesmen	25
Laborers	35
Drivers	8
Others	17

There is some preponderance naturally of the lower and laboring classes, yet the list of occupations includes many persons in all walks of life, and the analysis corresponds in most respects to that made by Dr. Mason of inebriates at Fort Hamilton. The observations made upon them have theretore, I believe, value as a social and pathological study.

I shall discuss now only the male cases, as it is concerning their histories that my inquiries have lately been directed. They make up about three-fourths of the total. About one-half are in a condition of plain drunkenness. From this they usually recover in a day or two, are discharged, and sometimes return again in a few weeks or months. If they return often they receive the name of "rounders" and "bums." The other half consists of persons who are verging on, or already in, delirium tremens, or in alcoholic coma, convulsions, or mania. The patients are classified therefore as—1, plain "drunks;" 2, delirium tremens; 3, febrile delirium tremens; 4, mania a potu; 5, miscellaneous and complicated cases. About ten per cent. die either from a complicating pneumonia, from delirium and exhaustion, or meningitis. A smaller per cent. becomes insane. The most frequent complicating condition is epileptic convulsions. Among 350 there were 11 cases, or over three per cent. Next comes insanity or dementia, 2 per cent. Phthisis and nephritis were found in 5 and 2 cases, respectively, out of 350. Rheumatism occurred in 2 cases. Multiple neuritis occurs in about 1 in 400 or 500 cases of men; very much oftener in women—one or two per cent. Drinking habits in the parents were reported in all but 10 out of 350. Usually the father is the drinker; in 8 cases both parents; in 1 case the mother alone. The age, sex, race, and occupation I have given in a previous study.

The question that has often presented itself was, How many of these persons who were brought to the hospital suffering from acute alcoholic intoxication were victims of the disease, so called, of inebriety?

I have spoken of inebriety as a "so-called" disease not because I doubt its existence but because, as the word is often used, it includes a vast number of cases that belong to social and moral reformers, not to physicians alone.

In a work on inebriety by Dr. Norman Kerr we are told that no disease is more common than that of which he writes, and that there are but few families in which some member is not a victim. Inebriety, according to the same author, is a disease characterized by an overwhelming desire to get drunk. He seems to include nearly every person who drinks, and at times gets drunk, in this class, and the ordinary lesions of chronic alcoholism are spoken of as being the pathological basis of the disease. I cannot agree with such sweeping statements or such comprehensive definitions.

It is impossible, to be sure, to define inebriety with precision or to establish arbitrarily its exact characteristics. But it is, I believe, the wiser and safer course to limit as much as possible the class of cases to be placed in this category. For we know, in the first place, that inebriety, however loosely defined, is not a disease which has a structural or anatomical basis that can be recognized. We know that it is a symptom only of psychopathic and neurasthenic states. The lesions found in chronic inebriates are the consequence, not the cause, of their indulgence. Neither inebriety nor drunkenness is ever, strictly speaking, a disease. It is a symptom only. It is a symptom, on the one hand, of a degenerative nervous system or of an acquired neuropathic state, and, on the other hand, of a weak, self-indulgent, and perhaps depraved character. Between these extremes there are all sorts of gradations. But most habitual drunkards are much nearer the class of those who are weak and self-indulgent in character than of those who drink from the impelling force of a morbid craving.

In a certain sense, and taking a purely material standpoint, criminals, sensualists, libertines, drunkards, are all the victims of a disease, *i.e.*, of a constitution and personality which are abnormal. But neither pathology nor economics is yet ready to adopt this view. We still consider disease to be a disorder of the body and its organs; vice to be a disorder of the character, for which the individual must be held responsible. When a man has a depression of spirits, gets nervous and worried, takes to drink, and drinks steadily, more and more, till he makes a wreck of himself, it seems to be the custom of the propagandists of the gospel of inebriety to say that he has caught their disease. But this may not be so. If it were morphine instead of alcohol, we should say that the patient had a morbid habit or craving, not that he had got a disease. We are told, again, that neurasthenia causes inebriety, that fracture of the skull, blows on the head, and stricture of the urethra do the same.

This is a loose way of dealing with the subject. Trauma, shocks, and local diseases, we know, cause neurasthenic states, and a craving for drink, or for women, or tobacco, or candy, may be one of the symptoms thereof. But the craving is only a part of the symptoms.

I say again, then, that we ought to limit the application of the word inebriety, for the present, as rigidly as possible.

I should define inebriety as a periodical psychosis characterized by attacks of uncontrollable craving for drink, the craving being for quantity not for quality, and the patient being perfectly or relatively abstinent between his seizures. Inebriety is a periodical convulsive or fulminating psychosis, a form of instinctive insanity. Besides this typical form there is anothor, allied to it. In this the patient, who is neurasthenic and melancholic, takes liquor for the purpose of drowning his discomforts and cares. The first drink paralyses his will, excites the drink instinct, and he takes another and another. He cannot stop himself, and he plunges into a prolonged debauch. After recovering from it he remains temperate until another period of temptation occurs. He cannot drink temperately at any time, because a small dose of liquor flies to his head or disturbs his stomach; hence he abstains except when his periods of depression occur. Here the periodical indulgence is much more truly symptomatic of a neurasthenic state than is the former type.

Of course there are cases which shade from the foregoing types into those of common drunkenness; but I think that the above classification is as nearly accurate as is at present possible.

The so-called habitual inebriates who drink and keep more or less drunken the whole year through should be classed as persons who have depraved and morbid habits, with, in many cases, the secondary diseases which are the result, not the cause, of their indulgence in liquor.

Among 350 cases whose histories I have especially studied, the following is a fairly accurate analysis:

Steady drinkers	261
Sots	15
Occasional drinkers	25
Periodical inebriates	18
Unknown	31
Total	350

By the steady drinkers I mean a class of persons who drink every day whenever occasion offers. They get drunk, as a rule, deliberately on holidays, and Saturdays or Sundays. The sots, or as they are technically known to hospital attendants, the "bums," are persons who keep themselves continuously as drunk as their means and work allow.

The proportion of persons who are, strictly speaking, inebriates is thus seen to be about five per cent. This estimate is not too low, for the patients are rather inclined to make as good a story as possible of their habits.

When it is remembered that besides the 4,000 alcoholic cases taken in yearly at Bellevue, there are about thirty thousand cases of plain drunkenness brought yearly to the station houses, it will be seen that the inebriate psychosis is really a very rare one, and that plain *drunkenness is to inebriety about as* 700 *to* 1.

This conclusion is, I believe, borne out by the personal experience of physicians, although we, as a class, are brought professionally into relation chiefly with the inebriate and insane alcoholics.

The vast majority of excessive drinkers then, are, I believe, persons who have gradually acquired a taste for alcohol, or who resort to it more or less deliberately for purposes of conviviality, and to drown the cares and sorrows of an uncomfortable environment.

Treatment.—In dealing therapeutically with alcoholic indulgence, therefore, we should be careful to estimate to what extent this indulgence is a morbid habit, and to what extent it expresses a degenerative psychopathic disease.

In all cases self-restraint and removal of bad influences is an important factor; but in the rare psychosis of inebriety good resolutions are of little avail and medical treatment is imperative. In the common chronic alcoholic states the "mind-cure" and isolation are vastly more important factors. I do not deny that in most of these cases the bodily system has undergone a change by reason of its excessive and constant poisoning by alcohol. The nutrition of the nervous system is so perverted that it requires for its comfortable action the presence of alcohol. This change of nutrition might be looked upon strictly as a disease, but it has this peculiarity that by an effort of the mind the craving can be made eventually to disappear. We cannot will away the true neuroses, like epilepsy, chorea, neuralgia, and functional spasms, or the true psychosis, like mania. Furthermore, if such acquired appetites are to be regarded simply as pathological, then we must add to our list of diseases the craving for pie, the habit of chewing gum, of eating candy, of taking an egg for breakfast, without regular indulgence in which some people would feel most uncomfortable.

Nothing, it seems to me, is more unscientific than to pronounce as inebriety all the curious mental disorders and nervous phenomena caused by a few drinks of liquor. A man may have epilepsy, insanity, neuralgia, trance states. A drink of liquor brings out these symptoms, but he is not, for all that, a sufferer from inebriety. That is only one symptom of many.

A few words further in regard to treatment. The suggestive treatment, and hypnotism, including the much-lauded Keely cure, do not and cannot cure inebriety of the types described. This has to be treated as one would treat any degenerative psychosis. All forms of tonic treatment, the water-cure, electricity, pure air, good food, removal from any depressing or irritating surroundings, are indicated here. There is one drug which has been long known to have a certain degree of specific effect in inebriety and in alcoholic intoxication. This is strychna. Its use both in acute and chronic alcoholism is undoubtedly attended with good results. In acute alcoholism, when the system is overwhelmed with the poison, it is my custom to give it in doses of gr. $\frac{1}{60}$ every two or three hours.

In chronic alcoholism and in inebriety it should be given in good doses for a considerable time.

I am told that strychnia is really the basis of the Keely cure, and I presume that this drug, together with the moral influences, have done all that really has been done by the mythical gold injections.

In acute alcoholism my experience has covered a wide range of therapeutic endeavor. The old opium treatment was supplanted years ago by the use of bromide and chloral. This in turn was followed by the use of hyoscyamin (often with deadly effect) and morphine, and of the newer hypnotics, such as paraldehyde, sulphonal, etc.

As the result of a good deal of experience I have come to the conclusion that, in ordinary acute delirium of alcoholism, chloral in large doses (gr. xx. to xl.) repeated in smaller doses in two or three hours, and combined with digitalis and strychnia, is the safest and surest means of controlling the excitement and securing sleep.

This formula may be used:

℞—Chloral hydrat.	℈ xvj.
Ext. digital. fl.	♏ xiv.
Strychinæ nitrat.	gr. ¼.
Aquæ	℥ iv.

M. Sig.: Dose ʒ ij. to ʒ iv., repeated in smaller amount every two hours if needed.

Such treatment is of course combined with a preliminary laxative, and with careful diet of hot milk and beef-tea with red pepper.

In frebile delirium tremens depressants must be used with care, and strychnia given hypodermically every three hours. Cold baths or cold wet packs, with friction, must be applied every two or three hours while the temperature remains high

The use of hypodermic injections of morphia is very rarely needed, and I do not advise it. The use of hyoscine and hyoscyamine is, in my opinion, positively unjustifiable except in mania a potu. Here is a mental disease, not an intoxication with alcohol, and a paralyzing drug like hyoscyamus may be safe.

In conclusion, I would restate the points I desire to make, as follows: Inebriety is never, strictly speaking, a disease. It is a symptom of a neuropathic or psychopathic constitution, and is usually only one of numerous other symptoms. In its most common and its typical form it is a periodical psychosis.

Of the enormous number of persons who drink intemperately a very small proportion are strictly inebriates. In this city there are at rough estimate seven hundred drunkards to one inebriate. Of the cases brought to Bellevue about five per cent. are inebriates. Inebriate specialists see more, relatively, of true inebriety. In large general hospitals the percentage is near the normal, and a better point of view is gained. Inebriety is a rare disease relatively. It is but slightly amenable to moral influences, hypnotism, or suggestion, and is not at all affected by chloride of gold or any specfic medicine. It is helped by suitable general treatment. Habitual drunkenness, like other bad habits and morbid cravings, is helped by moral influences, self-restraint, as well as by proper medical treatment. The results of treatment at Homes, where restraint and moral influences are chiefly applied, are apparently as good as those where all forms of of alcoholic indulgence are looked upon and treated as a disease.—Charles L. Dana, in *Med. Rec.*

DIPHTHERIA.

Any contribution towards the better comprehension of diphtheria must be welcome, and it is a singular fact that for some years after its discovery by Klebs, and subsequent re-discovery by Loeffler, there should have been comparatively little attention paid to the bacillus, which is now on all sides recognized as being the prime agent in the disease. It was not, indeed, until Roux and Yersin succeeded in showing that the products of the cultures of this organism give rise to some of the characteristic effects of the virus, including paralysis, that the etiological relationship of the bacillus to diphtheria could be said to have been established. This point in the history of the subject was brought out by Professor Baginsky in a paper recently read before the Berlin Medical Society, that occasioned a discussion which occupied two sittings. It may be remarked in passing, that Professor Baginsky, in giving so much credit to the French observers, did not escape the criticism of one of the speakers, who pointed to the long array of German men of science who had worked at the subject; but Professor Baginsky successfully maintained his ground. The main purport of the communication was to develop what may be termed the bacteriological diagnosis of diphtheria, and to advocate its routine employment as an adjuvant to clinical observation. During the past year he has been engaged at the Hospital for Sick Children, which bears the names of the Emperor and Empress Frederick, in obtaining tube cultures from the false membranes of all cases admitted with the diagnosis of diphtheria. Blood serum was used for the cultivations, which were carried on at a temperature of 37°C. In most cases the microbes found in association with Loeffier's bacillus disappeared, and there was left a pure culture of the latter, which in a few hours assumed its typical and easily recognizable characters. This test was supplemented by microscopical examination of dry preparations, and, in doubtful cases, by the results of inoculation on animals. A pure culture of the bacillus was obtained in 118 out of 154 cases thus examined; of these 118, 45, or more than 38 per cent. proved fatal. Thirty-nine of these cases were associated with paralysis, 17 with severe septic phenomena, and 44 cases required tracheotomy; whilst only 28 (or 25 per cent.) ran a mild and favorable course. On the other hand, there were 36 cases of the whole group from which the deposit yielded no bacilli, but only cocci; and it is particularly instructive to note that only 4 of these were fatal, one being a case admitted with severe paralysis, another complicated with measles and dying from pneumonia, and two developing bilateral empyema. All the rest ran a favorable course, and recovered in a few days without complications. The inference drawn by Professor Baginsky from these facts is that there are two types of disease, indistinguishable in their superficial characters, marked by a deposit of false membrane on the fauces and tonsils, and associated with fever, prostration, and swelling of lymphatic glands. The one is true diphtheria, and is caused by Loeffler's bacillus; it is of far greater severity than the other, which appears to be excited by staphylococci and streptocci, and runs mostly a favorable course. Nor is the latter so remarkably contagious as the former; whilst he has known the bacillary disease to supervene upon and prove fatal in a child who had gone through the milder affection. So convinced is he of the value of this distinction that he has devised apparatus for conducting this bacteriological inquiry as a part of clinical investigation; but as was pointed out by Professor Henoch, the time required to obtain the characteristic cultures would render of little use the information gained therefrom. Moreover, as other speakers said, the delicacy of bacteriological experimentation was such that it could hardly be expected to become the appendage of every clinician. Professor Baginsky's research further led him to establish that the mild and non-contagious malady known as "rhinitis fibrinosa" was dependent on Loeffler's bacillus. At any rate this microbe was found in the membrane from two cases of this affection, suggesting, he said, a relationship to diphtheria akin to that of varioloid to variola. On the other hand, he proved by the same method of investigation that the so-called scarlatinal "diphtheria" has nothing to do with true diphtheria. For in all the cases of this class that he had examined, he had never once found the bacillus of Loeffler, but only cocci in the false membrane. Moreover, in cases of true bacillary diphtheria, upon which scarlet fever or a scarlatinal rash supervened, the growth of bacilli was replaced by that of cocci, thus appearing as if a new contagium had driven the old one out of the field.

As might have been expected, this novel method of diagnosis and the ideas that flowed from it gave rise to considerable discussion. Dr. Ritter, who had some years ago pursued a similar inquiry, had also found the bacillus absent in a certain number of cases of supposed diphtheria. He pointed out that one great distinction between septic disease and diphtheria consists in the fact that the diphtheria bacillus is only to be found locally in the false membranes, whereas in septicæmia streptococci are met with in the blood. He repeated the well-recognized clinical fact that diphtheria may by its local lesions afford entrance to septic organisms; and as regards scarlatinal angina, he said that he had found the diphtheria bacillus in one out of nine cases examined. Dr. Zariniko protested warmly against the labors of German investigators upon the diphtheria contagium being ignored, and said that no new facts had been adduced by Professor Baginsky. He thought, however, that the latter's observations on scarlet fever were of importance, but could not reconcile the discovery of Loeffler's bacillus in the purely local affection—rhintis fibrinosa—with the known history of the diphtherial virus. Dr. Troje said that, after all, the application of Professor Baginsky's test would not give *certainty* to a diagnosis of true diphtheria—that could only follow on the results of inoculation; and for his own part he would not regard the occurrence of a streptococcal invasion of the injured parts with such favor as Professor Baginsky would, since it points to a septicæmic condition. He alluded also to observations by Barbier and Dahmer, which went to prove that a "mixed infection" of the diphtheria bacillus and of streptococci was of the greatest gravity. Dr. B. Fraenkel admitted the occurrence of a non-bacillary membranous pharyngitis; he doubted, however, the practical utility of placing the fine methods of bacteriological analysis in the hands of private practitioners. Professor Henoch spoke in much the same strain, doubting if the methods described could add much to clinical facts which pointed to the relative severity of attacks of alleged diphtheria. He hoped, however, that the vexed question of the nature of primary membranous croup would be determined by these methods of research; and he was pleased to find a confirmation of the view he had long held as to the non-diphtheritic character of membranous exudation in scarlet fever confirmed. Dr. Scheinman desired more information as to the presence of the diphtheria bacillus in rhinitis, which was a purely local affection. If correct, the observation would tend to mitigate the unfavorable prognosis which the presence of the bacillus might convey. Dr. P. Guttmann was sceptical as to the non-diphtherial character of cases in which the bacillus was found, urging that it might have been present at an earlier stage, and had then been replaced by other microbes. He also asked as to the relationship of primary croup to diphtheria. The debate was closed by the President, Professor Virchow, who recalled the meeting to the old and essential definitions of diphtheria (a necrotising process), and who pointed out the need for a revised nomenclature of such diseases which have been proved to be dependent upon the action of bacteria. For the anatomical term "diphtheria" embraces far more than the disease evoked by the diphtheria bacillus; and a croupous exudation may be caused by the latter as also by other agencies. He urged the necessity of having botanical terms applied to distinguish these different organisms, so as to avoid the confounding of conditions which were etiologically or anatomically dissimilar. In his reply, Professor Baginsky maintained his position, and held that the difficulties of the method he had desired to introduce into practice had been over-rated. Of its importance he was convinced, since it was obvious that at least two totally different affections were liable to be included under the head "diphtheria" so long as reliance was placed upon clinical characters alone. He mentioned that he had found Loeffler's bacillus in cases regarded as true croup; and that since his paper was read he had confirmed his observations on rhinitis fibrinosa in a third case.

It will be seen that throughout this debate there was a general recognition of the pathogenic position of the bacillus discovered by Klebs and Loeffler, and the acceptance of the corollary that at its onset diphtheria is a local malady. But where opinion varied was as to the absolutely pathognomonic value of the detection of the bacillus, since it may have been present at the earlier period of the malady, but have been replaced by an invasion of septic organisms subsequently. The discovery of the bacillus in membranous rhinitis was a new fact, and, as all concerned in the mild clinical course run by that affection, this discovery is hard to reconcile with what is known of the virulent character of the bacillus in question. Nor, interesting as his suggestion is, do we think that the method which Professor Baginsky desires to introduce into ordinary practice—as an aid to diagnosis—is likely to prove of much value, owing in part to the technical skill and knowledge requisite to obtain the cultures and identify their nature, and in part to the valuable time occupied in obtaining them.—*Lancet.*

ON THE SURGICAL TREATMENT OF TUBERCULOUS CERVICAL GLANDS.

Edmund Owen, F. R. C. S., in the *Practitioner.* says:

Considerable time is usually wasted with iodine, poultices, and trips to the seaside. When a gland has once broken down an operation of some kind is inevitable Too often nature is allowed to be the operator. The reason that glandular abscesses in the neck are so often allowed to run their prolonged and unsatisfactory course is the practitioner's dread of alarming the parents by proposing an operation which will demand the administration of chloroform, the infliction of a wound, and the methodical scraping of deeply lying parts. Further, he knows that there must result a permanent scar; but experience shows beyond a doubt that the scar left by a clean and thorough operation is much less conspicuous than that which follows the plan of "leaving things to nature," or of adopting a half-hearted policy.

If the glandular affection is not far advanced the operation may be extremely simple. The surface of the neck is rendered aseptic, chloroform administered, the dusky and unhealthy skin cut away, and the gland capsule thoroughly scraped out with a sharp spoon. There are no sinuses to be laid open, or neighboring compromised glands to be weeded out. The wound is therefore vigorously swabbed with a little mercuric wool and dusted with boracic acid, a strip of protection is laid over the opening (to prevent the dressing sticking), the neck is firmly bandaged over absorbent dressings, and the head laid flat and steady between two large sand-pillows. The cavity fills up by granulations; these are in due course converted into pink and then white scar-tissue, which, undergoing inevitable contraction, eventually leaves the child with a scar so small as to be scarcely noticeable. But, unfortunately, only a small percentage of cases are of this simple character. They have been allowed to drift on till some effectual operation is clearly inevitable. It is of little use advising operation in a case unless the surgeon is determined to deal radically with every implicated gland and sinus. He must secure a skilled assistant, as well as a skilled anæsthetist. In giving chloroform it is always necessary to watch the pulse as well as the respiration. It is more than possible that the sudden syncope of two children during this operation may have been owing to the serious disturbances to which the larger vessels and nerves beneath the base of the skull were necessarily subjected during the removal by enucleation or scraping of adherent masses of gland. In a deep and extensive operation in the neck there is no structure which gives the surgeon so much anxiety as the internal jugular vein. In most cases some enlarged gland is found lying close agasnst it, and in not a few cases the capsule is intimately adherent to it. Sometimes, on the conclusion of an operation, upwards of an inch of the naked vein may be seen in the depths of the wound. In one of my recent operations, on gently drawing a hard mass of gland toward the surface, we found that the vein was being dragged up with it, and running the greatest risk of injury. It is quite extraordinary to note the number and importance of structures which are often laid bare in the depths of the wound—muscles, vessels, and nerves. But the internal jugular vein is the only one which causes real anxiety—it is thin-walled and easily lacerated, deriving almost no protection from a sheath. On one occasion, the diseased gland was so adherent to the vein that a wound of the vessel was unavoidable. Two ligatures were applied, and the vein divided between them.

In attempting to isolate the internal jugular vein preparatory to ligature, the close proximity of the vagus, the sympathetic, and other nerves must be remembered, as also that of the internal carotid artery. Blindly to thrust down the catch forceps in the region from which dark blood is welling up with the alarming rapidity would be rash and unsurgical. The hemorrhage must be provisionally controlled by prompt and firm pressure beneath the mastoid process, and then the vessel must be thoroughly exposed, the sterno-mastoid being cut across if need be. It is highly expedient, therefore, that the surgeon be not distitute of competent assistance; he must not depend for help upon the anæsthetist, for that individual may find that he has already quite as much as he can manage with safety.

If a considerable amount of diseased skin has had to be cut away, or if a layer of friable tuberculous cicatrix has needed removal by the sharp spoon, no attempt should be made to close the wound. A clear course having been made by the sharp spoon down to the depths of the diseased area, drainage will take place without special provision being made for it. But if there has been only a slight sacrifice of skin, and the surgeon thinks himself justified in attempting to secure primary union, it is better to leave in a slender piece of drainage tube, or a small strand of horse hair. There is sure to be considerable exudation following the scraping, and unless the fluid escapes freely into the dressings, it is apt to cause tension, pain, and disappointment. A scraping operation is very different from a clean incision through healthy tissues, and often there is a considerable amount of discharge for a week or more.

When a new operation is introduced, it takes some time to settle down to its true value and proper place. Too much is expected of it. Too much is promised for it. The last note, therefore, in connection with the radical treatment of tuberculous glands is one of caution. It is in every respect a most excellent operation. In some cases its success proves greater than could have been expected, but in others it proves, in the first attempt, somewhat disappointing. Experience has not yet indicated exactly what class of cases are likely to need a second clearing, but it has abundantly shown that the chief element in begetting disappointment is delay in subjecting the child to the ordeal. Another element is the paving of the way to the operation with solid promises of immediate and complete relief. The wise surgeon promises no more than he can assuredly perform, and, following the advice of a mighty statesman, he never prophesies unless he knows.—*Epitome of Medicine.*

DEATH DURING ANÆSTHESIA.

The British Medical Journal of January 16th, 1892, contains an interesting article on chloroform by Dr. Lombe Atthill, in which it is stated that the report of the Second Hyderabad Commission "affirms distinctly that death from chloroform is due to asphyxia." This is entirely a mistake. The Hyderabad Commission has affirmed over and over again that the only danger of asphyxia during chloroform inhalation is that it leads to gasping inspirations, and so to rapid and frequently irremediable overdosing. No doubt the nerve centres are more susceptible to poisoning with chloroform when asphyxia is present than when it is absent.

In the same issue of the *Brtish Medical Journal* there is a letter on "Death During Anæsthesia," by Dr. Horatio C. Wood, of Philadelphia. Professor Wood says: "Denial of the existence of the other side of the shield has been persisted in by many an honest and capable man, but in the long run the world learns for itself, and so I leave this controversy with the hope never to return to it." I trust sincerely Professor Wood will reconsider his decision and fight it out like a man to the end. The Hyderabad Commission has never denied the existence of two sides of the shield. On the one side are the true followers of Simpson and Syme. Syme's cases and my own form a series of chloroform administrations extending over forty-five years, without a single death. On the other side are Professor Wood, the Glasgow Committee, Professor MacWilliam, and their disciples the anæsthetists. On that side deaths under chloroform have been numerous, and have increased in frequency of late years in exact proportion as their teaching has gained ground.

We may well ask what is the difference between the two sides of the shield; and is it incapable of adjustment so as to make both sides alike? The main practical difference is this: The fundamental principle of chloroform administration on our side of the shield is that it is useless and dangerous to take the pulse as a guide. On Professor Wood's side, on the other hand, it is an essential principle of chloroform administration to watch the pulse continuously during the whole time of the inhalation. Our principles are founded upon uniform clinical and experimental data, and are characterized by uniform results; but on Professor Wood's side there is a conspicuous absence of uniformity in everything except the death-rolls from anæsthetics and antagonism to the Hyderabad Commission.

Our experimental data show that chloroform never affects the heart directly, and we are prepared to produce chloroform anæsthesia with uniform results in any laboratory or operating theatre in the world. If we can do this anybody can do it. The want of uniformity on Professor Wood's side is illustrated by Dr. Wood's statement that the heart is paralyzed by chloroform; by Professor MacWilliam's statement that it is dilated by chloroform; and by the Glasgow Committee's finding that the great danger of chloroform is sudden stoppage of the heart through the vagus; while the anæsthetists tell us through their champion, Dr. Dudley Buxton, that these anatomical conditions—denoting cardiac enfeeblement by chloroform—are the counterparts of the procession of events which they themselves encounter again and again in the operating theatre when chloroform is administered in accordance with their own plans.

At first sight these differences may appear to be irreconcilable; but in reality they are not so. The Hyderabad Commission has shown that there is always complete uniformity in all experiments with chloroform inhaled in the natural way, and that absence of uniformity is only characteristic of experiments where natural breathing is interfered with. This is precisely the point which our opponents have overlooked. In Professor MacWilliam's experiments the thorax was laid open and chloroform was pumped into the lungs with bellows, so that natural breathing was impossible. In those of the Glasgow Committee the chloroform was administered "by a cloth saturated with the agent being held over the mouth and nose," that is, with insufficient air, and vagus stimulation—which the Hyderabad Commission has since proved is a safeguard in abnormal inhalation—resulted. In Professor Wood's experiments there is an omission of all mention of the regularity or otherwise of the respiration.

In the *Medical Chronicle* of May, 1891, a friendly challenge was thrown down to Professor Wood, Professor MacWilliam, and the Glasgow Committee, of which they have hitherto taken no notice. It may be repeated here, in the hope that they will take it up and see for themselves if the two sides of the shield cannot be brought into accord and the chloroform question settled, in order that deaths during anæsthesia shall henceforth and forever cease to occur. I therefore repeat my challenge to Professor Wood and his supporters—whether physiologists or anæsthetists—to produce an irregular tracing in the laboratory, or any irregularity of the heart's action in the operating theatre, in any case of chloroform anæsthesia in which the breathihg is regular and natural throughout the inhalation. If Professor Wood and his friends refuse to accept this challenge, judgment must go against them by default. —Surgeon-Major Lawrie in *British Medical Jour.*

THE TREATMENT OF PRURIGO AND PRURITUS.

Barjon (*Journal de Médecine et de Chirurgie*, tome lqiii., 4 cahier), in a thesis upon the treatment of prurigo and pruritus, limits the first term to the affection characterized by the presence of papules, while pruritus designates cutaneous hyperæsthesia without appreciable lesion. Treatment must first be directed to the cause of the trouble. Yet even if this is discovered and remedied, itching may still continue. This is sometimes noticed in parasitic diseases, the symptoms persisting for several months after the entire cure of the original lesion. Diabetes, deficient renal action, ptomaine absorption from the alimentary tract, and affections of the nervous system, all must be considered in searching for the cause of itching.

Among the medicines which are found useful are the following: Extract of valerian, in doses of from 15 grains to a drachm; valerianate of zinc, 1 to 3 grains; powdered belladonna leaves, or extract of belladonna, from ⅙ grain to 1½ grains; tincture of belladonna, 2 to 8 drops; daturia, in appropriate doses; carbolic acid, from 8 to 16 grains, given in pill form, and followed immediately by copious libation to prevent irritating action; or carbolic acid may be administered in the following combination: carbolic acid, ½ to 2 grains; calcined magensia and extract of valerian, each 2 grains, made into one pill; arsenious acid or arseniate of sodium may be administered.

These drugs should be given, commencing first with small doses, and pushing the medicine until the point of toleration is reached. Antipyrin, salicylate of sodium, sulphate and valerianate of atropine, cyanide of potassium, all are drugs which, in individual cases, have served useful purposes.

Morphine, bromide of potassium, and chloral should be interdicted, since all these drugs give but temporary relief, and are liable to increase the itching.

In so far as external applications are concerned, baths, particularly those of sulphur, often aggravate the condition. Warm vapor-baths or shower-baths, the temperature of the water being slightly moderated, are better. A general starch-bath, in which the patient is plunged for fifteen minutes, is sometimes serviceable; a quart of vinegar can be added to this bath. Lotions of hot water may be employed, to which may be added any of the following medications: Carbolic acid, 1½ to 3 drachms to the quart; chloral, 1½ to 8 drachms to the quart; bichloride of mercury, 15 to 30 grains to the quart; vinegar, 2 ounces to the quart; camphorated alcohol, 1 to 2 quarts of water; hydrocyanic acid solution, 1 to 2 drachms to the quart; infusion of cocoa, or infusion of tobacco leaves, ½ to 1½ drachms to the quart. Rain-water ahould be used for these lotions.

After the application of these solutions either a vegetable or mineral dusting-powder should be used upon the affected parts, or a pomade should be applied.

Dusting-powders are made up of a mixture of starch with bismuth, or oxide of zinc or salicylic acid. The two former ingredients form five to twenty-five per cent. of the powder. The salicylic acid forms from one to three per cent.

Excellent pomades are made by taking as a basis equal parts of vaseline and oxide of zinc. To this paste may be added one of the following ingredients in the proportions named: Menthol, 1 to 100; carbolic acid, 5 to 100; salicylic acid, 5 to 100; salol, 5 to 100; naphthol, 15 to 100.

A useful prescription is the following: Tartaric acid, 2 parts; carbolic acid, 1 part; essence of peppermint, 1 part; lard, 60 parts.

The affected surface is smeared lightly with one of these ointments, and is then powdered. The strength of the various applications can be progressively increased. The dressing should be renewed each time the pruritus again becomes distressing.

Plasters are often useful. Of these, the best are made of cod liver oil, to which is added carbolic acid or naphthol. Plasters of resorcin, of ichthyol, and oxide of zinc are also to be commended. If the pruritus is purely local, as about the anus, scrotum, or vulva, ignipuncture and linear scarifications will sometimes accomplish a cure.

Of all external treatment, without doubt the most succefsful is that of shutting off the affected area from the air. According to Tenneson, this will cure nine out of ten cases. The whole surface attacked with pruritus or prurigo is covered in with a dressing of caoutchouc or other impermeable substance. Under the influence of this investment cutaneous reflexes are shortly abolished. The dressing is continued as long as the itching recurs on its removal.

Unna's glue, supplemented by some of the dusting-powders, forms an excellent imperemeable coating. This glue is made up of gelatin, glycerin, and oxide of zinc.—*Therap. Gaz.*

MEDICAL EMERGENCIES.

The *American Practitioner and News* publishes the following list of medical emergencies, which are all worthy of noting:

Accidents in giving Anesthetics.—Tincture of digitalis hypodermically; draw out the tongue and see that respiration is not mechanically impeded; invert the patient quickly and temporarily; use forced respiration promptly, apply external warmth and stimulation; avoid the exhibition of alcohol.

Angina Pectoris.—Inhalation of chloroform, or a few drops of nitrite of amyl; 1-100 grain of nitro glycerine, internally; placing the feet in hot water; mustard to the precordial region; dry cup between the shoulders; hypodermic injections of morphine and atropine; administration of stimulants and anodynes.

Apoplexy.—Elevate the head and shoulders; if pulse is moderately strong and the brain congested, bleed from the arm freely, sixteen ounces or more; eleterine (one-sixth grain) or croton oil, two drops in a drachm of sweet oil or glycerine; cold to the head by means of an ice bag.

Asphyxia.—In drowning, hold the patient's head downward for a few seconds. In hanging or choking, bleed from the jugular. If there is obstruction to passage of air through the mouth or nose, open trachea. Artificial respiration at once, and to be continued. Friction, warmth, warm bath (100°), ammonia to nostrils, galvanizing of phrenic nerve.

Asthma, Spasmodic.—Hypodermic of atropine into the nape of the neck; inhalation of smoke of stramonium leaves; fluid extract of nux vomica, internally, alcohol, ether, chloral, opium; inhalation of chloroform cautiously administered.

Colic, Gall.—Morphine, hypodermically; inhalations of chloroform; hot applications to the abdomen.

Coma.—Dark room; head high and cool; head shaved; low diet; croton oil; if due to compression, antiseptic trephining; if due to anemia, pilocarpine and hot baths.

Heat Stroke.—Remove clothing, sprinkle with water, cold cloths to the head, hot cloths to feet; antipyrin; bleeding in robust subjects. After temperature is reduced give alcohol and diffusible stimulants, hypodermically if necessary.

Pulmonary Hæmorrhage.—If severe, raise the thorax, administer opiate; gallic acid, fifteen grains, every fifteen minutes; ergotin, five to ten grains hypodermically, two or three times daily; ice bags to the chest; as a last resort a ligature may be thrown around the larger limbs.—(*Tyson.*)

Hæmorrhage from Stomach or Bowels.—Tannic acid, ten to fifteen grains, if due to capillary oozing. If from typhoid fever or ulcer of the stomach, treat as for pulmonary hæmorrhage.

Hiccough.—Acid drinks, cold douches, ether or chloroform internally, externally or by inhalation; musk, opium, antispasmodics.

Hysteria.—Inhalations of ether or chloroform, for the spasms. If this is contra-indicated, give mono-bromide of camphor, musk, valerian, asafœtida, the bromides. In convulsive seizures, morphine and atrophine hypodermically.

Shock.—Warmth; hot water bottle to feet, flanks and epigastrium; warm effusion to head; horizontal position; frictions, stimulants, brandy, ammonia, galvanism to precordia.

Strangury.—Vesical, hypodermic injection of morphine, to be followed by other remedies; rectal enemata of starch-water and laudanum, followed by a hot sitz-bath

Nervous Sequelæ of Influenza.—When a storm has swept across the country, although the bulk of damage which it has done may be visible at once, there are many of the effects of its violence which do not immediately obtrude themselves. Trees may have been shattered and buildings wrecked, growing crops may have been ruined and live stock destroyed, but its ravages do not stop there. This country has recently been exposed to the full force of a severe epidemic —an epidemic which the obscurity of its origin and the suddeness and severity of its attack have combined to render even more alarming than others with which our acquaintance is greater, we cannot say closer. The full force of the epdiemic has now, it may be hoped, spent itself. But as the storm leaves behind it trees which are blighted but not destroyed, so this disease apparently so trivial, seems not rarely to be succeeded by conditions of nervous exhaustion and depression, to combat which requires all the art and skill which knowledge and experience can suggest. There seems to be little reason to doubt that the poison of influenza has a special influence on the nervous system. Numerous sequelæ of the disease have been described affecting the nervous system in its various parts, both central and peripheral; and there are not a few who hold strongly the opinion that in all its manifestations, both primary and secondary, it is essentially a nervous disease. But whether this view be correct or not, it will scarcely be questioned that the disease gives rise to symptoms of nervous disturbance, both widespread and severe. In estimating the amount and the frequency of such disturbance, allowance must of course be made for errors of observation. No doubt there has been too much tendency lately to ascribe morbid conditions of various kinds to a precedent attack of influenza, and this disease, already sufficiently loaded with its own burden, has been made to bear a share of others from which it had a right to claim exemption. Thus a patient may date the commencement of symptoms which now clearly point to cerebral tumor from an attack of influenza, but careful inquiry may elicit the fact that the only evidence of this was an attack of headache and vomiting, probably the first attack of this character associated with intracranial growth. So also, no doubt, with other conditions; but even after making a liberal allowance for such errors on the part of the patient or other observer, a considerable residuum is left in which one is driven to acknowledge an incidence of cause and effect; and if this is true of actual structural change in the nervous system, it is no less true of the serious and alarming conditions of what is known as functional disorder, which may go on to manifest itself in profound mental alteration. The excessive depression and lassitude which follow an attack of influenza are too familiar to require more than a mere mention, and in highly neurotic patients such a condition is often quite sufficient to upset entirely the somewhat unstable mental equilibrium. This was no doubt the case with a poor woman who a few days ago was found sitting on her kitchen floor in front of the fire tugging at a clothes line, which was twisted round her neck. Upstairs her two children, one a boy of two and the other a baby of six months, were found strangled. Evidence was to the effect that although previously a healthy woman and living happily with her husband and family, she had become much depressed after an attack of influenza, and this depression had apparently been succeeded by mental derangement. Many similiar cases are on record, and they show the profound effect which the posion of this disease has upon the highest nervous centres.

Summer Diarrhœa of Infants.—Clinical experience, as shown in the successful treatment of gastric disorders by irrigation of the stomach, and the antiseptic treatment of the entire alimentary canal, forces the conviction that these disorders which are under discussion are the result of decomposition processes, which are caused by bacterial agencies. Starting with the hypothesis that the contents of the alimentary canal are the substratum from which the intoxication which gives rise to gastro-intestinal disease proceeds, the following questions are submitted:

1. Do the contents of the stomach in dyspepsia in young children have a relatively greater quantity of micro-organisms than the contents of the stomach of healthy children?

2. Is there a relation which can be determined between the relative quantity of germs in the stomach of sick infants and the intensity of the disease from which they are suffering?

3. What are the relations between the relative quantity of germs in the contents of the stomach and the intensity of the disease, on the one hand, and climatic factors, which influence the destruction of the milk, the factor of temperature particulaly on the other hand?

To answer the foregoing questions, a quantitative bacteriological analysis was necessary, of contents taken from the stomach of a living child.

Investigations of this character on an extensive scale were made by the author, and from these it was concluded that in the acute dyspepsias of infants one has to deal with spores, which are antagonistic to the acid of the contents of the stomach, are introduced with the nutriment, and develop luxuriantly at the temperature of the body. The phenomena of severe dyspepsias and especially those of cholera infantum, are the phenomena of acute intoxication; hence it is reasonable to seek for the cause of the disease in the poisons generated by the saprophytes of the contents of the stomach.

These diseases are most destructive at the time when high temperature, through the action of micro-organisms, works destructive changes in food substances, and almost dissappear when the weather becomes cool. There are also cases which have the character and etiology of general infectious diseases.—*Jahrbuch of Kinderskeilk.*

Treatment of Erysipelas by Ichthyol.—In connection with the leading article upon this subject in this number of the *Therapeutic Gazette*, the following conclusions, reached by Klein, of Warsaw, are of interest:

1. Ichthyol undoubtedly checks the progress of the disease, either by its reducing action on the tissues, or by its direct action on the micro-organism, or by both actions simultaneously.
2. Ichthyol shortens the mean course of the disease by about one-half.
3. The period of treatment is from three to four days.
4. The course of the disease is considerably milder when ichthyol treatment is employed.

As regards this mode of employment in the clinic, equal parts of the ordinary ichthyol and vaseline made into an ointment were made use of. If the erysipelas covers an extensive surface, a weaker preparation will suffice,—equal parts of ichthyol, lanolin, and water. If the dilution is still greater in hairy parts, it can be gently rubbed. Before using the ichthyol, any wound present should be thoroughly cleansed and disinfected, and parts affected with erysipelas should be well washed with warm water and soap. Ichthyol is best rubbed in with the hand, commencing over the healthy skin, about a hand's breadth from the affected part, and gradually passing over it. The inunction should be as vigorous as the tenderness of the parts will allow, and as much ointment should be used as will leave the whole skin of a uniform dark-brown color. After the inunction, the parts are to be wrapped in a thin layer of hydrophile gauze moistened in salicylic water, and over this a thicker layer of non-absorbent cotton must be lightly fixed with a bandage. This procedure is to be repeated three or four times a day, and for three or four days, until the temperature has become normal. If the treatment be interrupted too early the disease will recommence.—*Medical Press and Circular.*

On the Electric Light and its Effects upon the Eyes.—There are two principal forms of electric light used: the arc light, chiefly employed outdoors and in large stations and workshops; and the incandescent, employed for general interior illuminations. The arc light is produced by passing the electric fluid between two carbon points, the light being most intense when the interval between these points is shortest. Some of the intensity is no doubt due to the combustion of the carbon as it passes in minute particles from the positive to the negative pole. The light is of a bluish, dazzling brilliancy, unsuitable for illumination, except when at a considerable distance from the eyes. Another great disadvantage it has is its intermittency and unsteadiness. The incandescent light is obtained by passing the current through a non-conducting medium *in vacuo.* As there is no combustion of the carbon if the vacuum is complete, the light is not as intense as the arc, and is very suitable for general illuminating purposes.

Comparing the different forms of light with sunlight their spectra show the following proportions:—

	Red.	Green.	Blue.	Violet
Sunlight	1.4	1.6	0.5	0.1
Electric	2.0	1.0	0.8	1.0
Paraffin	3.0	0.06	0.2	0.1
Gas	4.0	0.04	0.2	0.1

As it has been proved that the rays of greatest wave length—that is, from the red end of the spectrum—are most irritating to the retina, electric light irritates less than other forms of artificial light The electric light gives off but very little heat, and no products of combustion, while paraffin occupies a position between it and gas in this respect. Many eyes suffer discomfort when used for a length of time with any artificial light. This is most likely to occur in eyes that are being used at near work during the day, and is simply fatigue of the ciliary muscle and the accommodation. This liability is increased where there is ametropia. This irritability to artificial light occurs where persons, previously robust, and using the eyes without complaint in unfavorable circumstances, become debilitated, and then, though the general health is re-established, the irritation to artificial light remains. Many instances are recorded of the eyes being injured from exposure to excessive light. All cases so far recorded as due to the electric light have been produced by the arc, and then by gazing unprotected at it at short range. The patients are generally electricians or those working about the arc lamps. No well-authenticated case of injury to the eye from incandescent light has yet been recorded. The conjunctival symptoms are great congestion of the vessels, sharp pains through the globe, photophobia, lachrymation, swelling of the lids, frequently extreme chemosis of the conjunctiva, accompanied in some cases with great contraction of the pupils. These symptoms usually subside in a few days, and are probably the result of over-stimulation of the retina. In other cases actual inflammation of the retina takes place, and formation of a permanent scotoma. Another drawback of the arc light as compared to the incandescent is the large amount of violet and ultra violet rays that it contains. The incandescent light possesses, therefore, many advantages over all other forms of artificial light. —*Brit. Med. Jour.*

DIET IN RHEUMATISM.—Dr. James Frauenfelter gives the following as the best in his experience: In the early stages of the disease it is not difficult as a rule, to restrict the patient to a suitable diet, as the difficulty usually is to get them to take enough nourishment, but during convalescence, and when the appetite begins to return, then it is difficult to make a patient believe that a good supply of butcher's meat will retard his progress toward recovery. But as a matter of fact, those of us who have had much experience with rheumatism know that a return to solid food, and more especially the giving of meat too soon, is most likely to be followed by a relapse, because in acute rheumatism the system is loaded with waste products, the result of imperfect assimilation, and the digestive functions are seriously impaired. So long therefore, as the symptoms are acute, small quantities of milk, with some alkaline water, such as soda or lime water, should form the main part of the diet; besides these a little beef tea, chicken tea or mutton broth may be added. As the temperature falls and the acute symptoms subside, vegetable soups, bread and other starchy foods may be gradually added to the list; gruels, malted foods, arrow root, rice and yolk of an egg beaten up with milk, and a small quantity of brandy. As convalescence progresses, fish, oysters, and chicken may be allowed once daily. The above line of diet should be adhered to strictly until all symptoms of rheumatism have entirely disappeared As a rule ales, wines and the stronger alcoholic liquids are objectionable, except where the action of the heart is feeble, or in the latter stage of the disease.—*Med. and Surg. Reg.*

WHAT THE PHYSICIAN OF TO-DAY MUST, AND MUST NOT DO.—Dr. Burstein in his "Ideality in Medical Science," says: "The young physician, beginning his professional career, finds great difficulty in making a living. The public demand of him the development of science. They insist that he is to study medicine; to read journals; to join medical societies; to pore over countless articles; to go to hospitals; to see operations; to buy books; to buy periodicals; to buy surgical instruments; to examine his patients thoroughly; to make a correct diagnosis; to be careful in obstetrical work; to write prescriptions carefully; to consult his books in all cases of importance; to keep his office hours strictly; to attend to his patients regularly; to be ready for any emergency; to go promptly at night, when called; to be charitable; to not sue for non payment of his fees; to keep accounts; to support his family; to dress himself as a 'doctor'; to not keep away from society. This is too much, entirely too much, for the poor physician. He must be rich, he must be educated, he must have seventy-two hours' time to accomplish a day's work, and even then it would be almost impossible for him to fulfil all these requirements."

TRIGEMINAL NEURALGIA.—Dr. Seguin, in his lectures on the treatment of neuroses, strongly recommends the use of aconitine in cases of tic-douloureux. His opinion is, that cases are either cured by this drug, or that, at least, it is possible to give long intervals of freedom from pain; but it must be pushed, and its administration is not without danger. The form which he recommends for its administration is in a pill containing $\frac{1}{200}$ of a grain of Dusquenal's crystallized aconitine. These pills are given to the patient in gradually increasing quantity until numbness is felt all through the body with chilliness, and, in some cases, even nausea and vomiting. At first he gives one pill twice a day to females, and three times a day to males, and it is not unfrequently necessary to give as many as twelve pills daily. After the dose is found which is both efficacious and tolerable, the treatment is kept up for several weeks after the pain has ceased, and the patient is directed to take a large dose—two or three pills—on the least return of the characteristic sharp pain. Even if no syphilitic history is given, and although there should be no reason to suspect it, this treatment is continued with the administration of the red iodide of mercury, in doses increased from one-twentieth to one-fifth or one-sixth of a grain, and iodide of potassium from twenty to forty-five grains, largely diluted with water, after each meal. This medication is continued for two or three months steadily, and a course of a month of it is subsequently given every few months. Along with those drugs the patient must have an abundance of nutritious food, and it is advisable to administer cod-liver oil as well.—*Lancet.*

WHEN IT IS GOOD TO BE AT HOME.—"Well, Maggie," asked a teacher of a little girl, "how is it you are so late this morning to school?"

"Please, sir," was the reply, "there wis a wee bairn cam' to oor hoose this mornin'."

"Ah!" said the teacher, with a smile, "and wasn't your father very pleased with the new baby?"

"No, sir; my father's awa' in Edinburgh, and dinna ken aboot it yet; but it was a guid thing my mither wis at hame; for gin she had been awa', I wadna hae kent what to dae wi' it."—*Sanitarian.*

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MINERAL WATERS.

It is not proposed in this article to go into the particulars of so large a subject, but to gather up and express a few generalities on the question. The use of mineral waters is of great antiquity, and constituted one of the most valued means in the armamentarium of the physician of the earliest and most barbaric times. It is unfortunate that in these days of more scientific observation, our knowledge of the use of these waters is still in so nebulous a condition. The reason is not far to seek; with scarcely an exception the springs have been controlled by organizations which from financial considerations did not "damn them with faint praise," but with too much, the natural result being lack of confidence in an article extravagantly vaunted. With this has always gone hand in hand an ignorant and purely empiric, and therefore in too many cases, unsuccessful use of what in properly selected cases is a most beneficial therapeutic agent. Leaving out of mention for the time the many famous spas of Europe, great Britain and America, and referring to such sources of information as the appendix of Squire's companion to the B. P., those who wish to study the chemical composition and properties of the better known waters in detail, we may formulate a few general statements regarding their use. It seems to be the fact that artificial waters, made on the basis of a careful chemical analysis of the natural waters, are much less effective. Why this should be so, in the case of a natural water bottled and consumed at home is hard to say, unless it be that steady temperature, long process, extremely slow and perfect solution, and the intimate blending in certain very fixed proportions of minute quantities of very varying salts, gives the whole a value that the art of man cannot yet compass. When the waters come to be consumed at the spring or spa, that is a very different matter, for here the therapeutist calls to his aid complete change of environment, with all that that implies in hygienic, dietetic, and scenic variety, regulated habit, relaxation from business worry, congenial company, and the psychical *vis medicatrix* of the "hope that springs eternal in the human breast." Simon Baruch, M.D., of New York, in the article "Hydrotherapy and Mineral Springs," in Vol. I of Hare's System of Therapeutics, insists strongly on this point, and assigns an important part to the baths that accompany residence at a spa. He says, however, distinctly that "the effects of bathing in mineral waters differ very slightly if at all from those of bathing in ordinary water." The point is that the benefits of hydrotherapy, which are becoming better undersood of late, can be secured only by the skilled direction of physicians who have studied the question and can direct the proper baths for each case, and by the skilled services of trained attendants. Without these, residence at a water cure is little more beneficial than rest at any ordinary out-of-town summering place.

Apart from the accessory circumstances mentioned, the mere ingestion of a larger quantity of water than usual favors tissue-change, by increasing the amount of plasma and flushing the emunctories, from the minute lymphatic system outwards. It is altogether reasonable to suppose, as indeed it is proved by clinical experience, that a medicated water, particularly a natural water, has these good effects in a much higher degree. It has been found that patients at such resorts as these need control as to the quantity consumed, as they usually think that they cannot have enough of a good thing, and consume so much as actually to cause, what Majendie and Trousseau called "alkaline cachexia," real poisoning from excess of alkali and consequent malnutrition. Baruch, in the article above referred to, makes a very good working classification of mineral waters under the heads: 1, alkaline; 2, saline; 3, sulphuretted; 4, chalybeate; 5, acidulous; 6, waters characterized by special ingredients (alum, sulphuric acid, borax, iodides, bromides, etc.); 7, calcareous; 8, thermal.

Referring very briefly to these in order, alkaline waters contain as chief ingredients alkaline carbonates, especially carbonate of soda, with more or less of carbonates of lime, magnesium and lithium, and sodium chloride, and many are strongly charged with carbonic acid gas. The wide range of usefulness of such a water can be readily seen; in acid dyspepsia, gastric ulcer, or any catarrhal condition of the stomach; in catarrhal inflammation of the mucous membranes of the respiratory tract, by their power of augmenting and liquefying the mucous secretions; and most of all, perhaps, in catarrhal conditions of the bladder, by neutralizing the acidity of the urine, particularly in lithæmia, by dissolving uric acid deposits, and favoring the oxidation of effete matter; in "gout and rheumatic affections, hepatic hyperæmia, and obesity."

The saline waters are best understood if divided into sodium-chloride waters, and the so-called bitter-waters of the Germans, containing large quantities of sodium and magnesium-sulphate. This class, besides being of service from their alkaline qualities, is chiefly derivative and alterative. The bitter waters, such as Pullna, Hunyadi Janos, and Friedrichshall, are more strongly derivative, even purgative, and are high in favor as laxatives. The sodium-chloride waters are milder; valuable alkaline digestives; laxative, and if taken in sufficient quantity purgative; they are also alterative, as they contain small amounts of iodides and bromides and more or less carbonate of iron in some cases. An excellent water of this sodium-chloride class is St. Leon Water, native to our own country. The St. Leon Springs are in Quebec Province, in Maskinonge County, about midway between Montreal and Quebec City, on the north side of the river St. Lawrence. The subjoined analysis shows its undoubted value in properly selected cases, and represents the quantity of solids per gallon:

Chloride of Sodium	677.4782	grs.
" Potassium	13.6170	"
" Lithium	1.6147	"
" Barium	.6099	"
" Strontium	.5070	"
" Calcium	3.3338	"
" Magnesium	59.0039	"
Iodide of Sodium	.2479	"
Bromide of Sodium	.8108	"
Sulphate of Lime	.0694	"
Phosphate of Soda	.1690	"
Bi-Carbonate of Lime	26.4405	"
" Magnesia	82.1280	"
" Iron	.6856	"
Alumina	.5830	"
Silica	1.3694	"
Density	1.0118	

The profession would be consulting its own interests if it prescribed the water more frequently, its comparative cheapness in addition to its therapeutic value bringing it within the reach of every one. If space allowed, a tabular comparison of St. Leon with the best European springs, such as Kreutznach, Baden-Baden, or even Friedrichshall, would impress the Canadian practitioner with the value of the home article.

The sulphuretted waters owe their name to the presence of sulphuretted and carburetted hydrogen, not usually in any large quantity, and probably owe their efficacy to their other ingredients, exerting their chief action upon the intestinal canal as laxatives.

The chalybeate waters, as their name indicates, are used mainly in anæmia, chlorosis, the complaints peculiar to women and accompanied by anæmia, hysteria, and neurasthenia, diabetes and chronic Bright's, chronic diarrhœa, etc. Many of them contain alum and are therefore peculiarly efficacious often in the treatment of the latter trouble. Iron is present either as the carbonate or the sulphate; if the former, carbonic acid is usually abundant and the water beautifully clear and sparkling. They are contra-indicated in all febrile or congestive states, and in advanced disease of the lungs, kidneys, or liver.

The acidulous waters, from their large quantity of carbonic acid gas, are excellent table-waters, relieving nausea, improving the appetite, and aiding digestion. Apollinaris and Karlsbad are perhaps the best known here.

The calcareous waters are very "hard," full of lime salts, chiefly sulphate and carbonate, and of doubtful utility. Some authorities refuse to classify them as mineral waters, while others praise them highly. It would seem that they must at least be of service in conditions in which aqua calcis is useful.

The thermal waters may be dismissed as of no service beyond ordinary artificially heated waters. They are used only for bathing.

ARE OPERATIONS UPON THE MAMMARY REGION SPECIALLY APT TO CAUSE RESPIRATORY FAILURE DURING ANÆSTHESIA?

An almost fatal ending to chloroform anæsthesia the other day set the writer thinking, as it usually does the man in whose case the cat hesitates as to which side of the fence to jump. The patient was a strong, well-developed young man, in whose case one would least expect trouble. The operation to be done was the excision of a small mammary tumor. The circumstances need not be noted except that though the conjunctival reflex was completely abolished, the patient winced perceptibly on the incision being made, but was not aware of having done so, when consciousness had returned, the knife being drawn outwards towards the axilla from a point 1½ inches or so to the inner side of the nipple, past it for the same distance. Previously to this the heart had slowed too quickly and become somewhat irregular, but not alarmingly so. Now the respiration began to go wrong, each successive cycle being more shallow than the last, till it ceased altogether. Amyl nitrite, ether subcutaneously, depression of the head and vigorous artificial respiration induced the respiratory centre to resume its control of the situation in a few moments. Had the sensory impression made by the knife anything to do with the failure of respiration? The nervous mechanism involved is as follows :—The region of the incision is supplied in the male by the 4th intercostal nerve, with the 3rd and 5th, the nipple in the male being constantly in the 4th interspace. The twelve intercostal nerves communicate at the root of the ribs, on the inner or juxta-vertical end of the internal intercostal muscles, with the dorsal ganglia, usually twelve in number, of the sympathetic nervous system. These dorsal ganglia have two sets of branches in addition to that set, which strings them together into a chain, an external set communicating with the intercostal nerves, and an internal set. This internal set, usually twelve in number, is divided into two sets of six, the lower six going to form the three splanchnic nerves, and the upper six, which are very much smaller, going to communicate freely with the anterior and posterior pulmonary branches of the pneumo-gastrics, the two sets of interlacing fibres forming the anterior and posterior pulmonary plexuses. In particular, the internal branches from the 3rd and 4th ganglia go to the posterior pulmonary plexus. The sympathetic ganglia reflexly affected by an incision at the nipple, would thus be the 3rd, 4th and 5th, probably all three, the pneumogastric nerves complete the nervous chain necessary for the transmission of impressions to the floor of the fourth ventricle, where the respiratory centre lies in close proximity to the pneumogastric nuclei, and between them. The vagi throughout their whole course contain both motor and sensory fibres, and though not essential to respiratory movements, have decided influence upon them through the nervous mechanism already indicated, as, for instance, is shown by the convulsive inspiratory effort produced by cold affusion of the abdominal or thoracic parietes (though it is reasonable to suppose that that reflex muscular act is partially due to impulses arising from motor ganglion cells other than those of the respiratory centre). I am of the impression that I have seen it stated as the result of clinical observation, that operations in the mammary region are specially liable to be reflexly injurious to the respiratory centre, as are those upon the rectum. The ordinary and well-understood danger of beginning an operation before anæsthesia is sufficiently profound, for fear of the paralysis of the vasomotor system which allows of "bleeding into the veins," is, of course, operative as well in mammary wounds as in any other, and all the more directly as filaments from some of the upper six sympathetic ganglia supply the thoracic aorta and its branches, which could very promptly and seriously affect arterial tension, especially in the vessels entering the neck, and so interfere to such an extent with the nutrition of the medullary centres as to leave them quite at the mercy of the poisonous anæsthetic.

THE SHURLY-GIBBES TREATMENT OF PHTHISIS.

The old search for the philosopher's stone was all in vain, and there are many pessimistic observers at the present day, who affirm that the search after a cure for tuberculosis will be equally in vain. As long, however, as this dire disease can claim to be the cause of one death out of every seven that occur over the globe, just so long will men, eager to solve the problems which its history presents, devise one means after another to stay its ravages.

The last few years have seen the birth and death of several "cures" for phthisis.

The sulphur gas enemata made many hopeful, but were soon relegated to the past.

Weigert's hot-air treatment, after deceiving many, was shown to have made claims physiologically impossible. Tuberculin caused Berlin to be the "Mecca" of one of the greatest of modern pilgrimages. Yet without avail. It is characteristic of most of the modern suggestions regarding the cure of phthisis, that they try to assist nature. They are not so much antagonistic to the germs of disease, as devices to act as aids to nature in her untiring efforts to lessen pathological processes.

What this conservatism is, we have learned from the post-mortem table. It is to attempt to surround the infecting nidus by a zone of tissue of such a nature that the former will be circumscribed in its effects and either obliterated or cicatrized. To effect this, various drugs have been introduced into the system. Chloride of zinc and cantharidinate of potash are among the most recent suggestions. Still more recently have come the experiments by Drs. Gibbes and Shurly with chlorine inhalations, together with the hypodermic injections of iodine and the chloride of gold and sodium. It is based, its advocates assert, upon scientific principles. It is capable of being used by all physicians. Under these circumstances, it is worthy of more than passing notice.

In a very able article upon the treatment of tubercular disease, Dr. N. B. Shade, of Washington, D.C., sums up the indications as follows:

1. Remove the cause. That is, break up the soil in which the germs develop.
2. Restore the power of assimilating food, thereby increasing the volume and improving the quality of the blood.
3. Repair damaged lung and throat tissue.

On these points doubtless all will agree, but when we come to judge the method by which these results may best be obtained we have almost as many opinions as advocates.

Frequently the good results said to be due to a certain treatment, if closely investigated, will be found to result from climatic change, tonics, and cod liver oil, so that it becomes difficult to analyze the final product, and to assign to each factor its proper place.

In the *Therapeutic Gazette*, (Dec. 15th), Dr. H L. Taylor, of Ashvide, N.C., reports his results with the Shurly-Gibbes method. The results may be summarized as follows:

Total cases twenty-two.

Advanced cases with no improvement in their condition, six, or twenty-seven per cent. of the whole number.

Advanced cases with improvement, eight, or thirty-six per cent. of the whole number.

Cases which have shown very great improvement, including advanced and incipient cases, eight, or thirty-six per cent. of the total.

It is impossible to compare these results with those obtained (without the injections), in those cases in which reliance was placed entirely upon climatic and tonic treatment, with attention to symptoms as they arose, for two reasons.

The first is, that many cases are so far advanced that euthanasia is the one object of all treatment. They cannot oftentimes reach their homes alive. Such cases would throw the balance at once to the side of the Shurly-Gibbes treatment, and evidently unjustly. The second reason is, that, in parallel cases, the comparison could only be made with those who have refused the Shurly-Gibbes remedies,—patients who have not had the courage to undergo the treatment. The temperament of such cases is against them in their battle for health.

Time alone will tell whether this treatment is of any real value, its greatest drawback is the severe pain caused by the iodine injections, and the tendency to the formation of abscesses at the site of puncture.

CANADIAN MILITARY MEDICAL ASSOCIATION.

The meeting held in May for the purpose of inaugurating the above Association was entirely successful. A constitution was drawn up which will be confirmed at the first annual meeting. The following were the officers elected:

Hon. President.—Surgeon-General Bergin.

President—Surgeon Strange, I.S.C., Toronto.

Vice-Presidents—For Ontario, Surgeon V. H. Moore, 41st Battalion Brockville Rifles ; for Quebec, Surgeon-Major F. W. Campbell, I.S.C., Montreal ; for New Brunswick, Surgeon Stephen Smith, Woodstock Field Battery ; for Nova Scotia, Surgeon Curry, 66th Princess Louise Fusiliers, Halifax, N.S. ; for Prince Edward Island, Surgeon J. Warburton, 82nd Battalion, Charlottetown, P.E.I. ; for Manitoba, Surgeon Codd, Canadian Mounted Rifles, Fort Osborne, Man.; for British Columbia, Surgeon Matthews, Garrison Artillery.

Hon. Secretary—Surgeon G. S. Ryerson, Royal Grenadiers, Toronto.

Hon. Treasurer—Surgeon Halliday, 57th Battalion, Peterboro'.

Executive Committee—Drs. Lesslie, Paull, Hilliary, Osborne, Griffin, Lynch, Grasett, McCrimmon, Mitchell, Holmes, Harris and Elliot.

Business Committee—Drs. Stewart, Rennie, Nattress, King and Henderson.

The first annual meeting will be held June 2nd at the Canadian Military Institute, when an interesting programme will be presented. So far as we can learn the following are the papers which will be read.

A paper on "The Experiences of a Surgeon during the American War," by Dr. Canniff, late Royal Artillery ; Surgery during the Franco-Prussian War, 1870-71," by Dr. Warren 2nd Dragoons; "Hygiene of Camps," by Dr. McCrimmon, 20th Halton Rifles ; "Gunshot Injuries of the Brain," by Dr. Daniel Clark, late surgeon U.S.A.

A discussion will take place upon "The present condition of the Militia Medical Service, and what should be done to render it more efficient." In the evening the ambulance corps of the Royal Grenadiers under Assistant Surgeon King, will practically illustrate the ambulance drill and handling of the wounded in war. At the same time the competition for the prizes offered by Surgeon Ryerson for the best and smartest detachment of the corps will take place.

An invitation will be sent to the executive of the Association of Surgeons of the National Guard of the U.S. to attend the annual meeting in June.

Such an organization cannot but be productive of good, and from the names of the officers we augur for it a useful future.

PERSONAL.

To the Editor of the CANADA LANCET.

SIR,—There having appeared in the *Templar* of March 31st, a paper published in Hamilton and the organ of the Royal Templars in Canada, a portrait and laudatory notice of myself, containing statements that are a gross violation of good taste and professional ethics, I am required by the Council of the Toronto Medical Society, to repudiate through the Medical Journals of Toronto, all connection with the parts of the article which deal with me in a professional capacity.

Having been one of the organizers of the Order in this country, and having held office continuously for seven years, the editor of the paper had often asked permission to publish my portrait, accompanied by a short biographical sketch. This permission I had refused until a few months ago, when the editor urged it, reminding me that a similar course had been taken with nearly all the officers of the Society. I unadvisedly consented, and did not take the precaution to see the biographical sketch before it was published. Having worked with and been known to the editor during those years, he was quite conversant with my history, and penned the exaggerated statement on his own responsibility.

In reply to a note from me, complaining of the statements made, he sent me the following :

HAMILTON, APRIL 28th, 1892.

DR. B. E. MCKENZIE,
Toronto, Ont.

Dear Sir and Brother,—Replying to yours of the 26th April, I desire to express my sincere sorrow if any blunder or mistake of mine has placed you in an unfavorable position before the profession. I am very sorry now that I did not consult you with regard to the brief sketch before it was published. Newspaper men easily fall into a hurried, reckless way of slashing off matter of this kind without any thought of the technical etiquette of any society or profession.

I make herewith the emphatic statement that you had no knowledge whatever of the character of text which accompanied your portrait, and that it was written without any consultation whatever with you. We took the liberty to deal with you as we did with other officers of our Association, looking at the matter purely from a society standpoint, with the desire of presenting you to your brethern in the most favorable light.

Yours fraternally,
W. W. BUCHANAN.

No other person can regret so keenly as I do the publication of statements such as those referred to above.

Yours very truly,
B. E. McKenzie.

Toronto, May 18th, 1892.

To the Editor of the Canada Lancet.

Sir,—I have been favored with a communication from Mr. Pyne, the Registrar of the College of Physicians and Surgeons, Ontario, threatening to "strike my name off the roll," unless I immediately paid the annual subscriptions due to the College. Now, I would willingly pay up if I saw any chance of getting value received. I submit that we Canadian graduates practicing in England, have a very substantial grievance against the College authorities. It is this:—Why is not some effort made to procure the registration of the diploma in England? By the last Medical Act (1889), the British Medical Council were empowered by Parliament, with the sanction of the Privy Council, to establish in the British Medical Registrar what it was proposed to call the "Colonial List," in order that respectable Colonial degrees might register, but up to the present nothing has been done in that direction. I maintain that the M. C. P. & S., Ontario, is such a diploma, and worthy of such recognition, for this reason, that the College requires a test in both primary and final subjects; and the candidate having usually taken his degree at one of the Universities, has reviewed again the subjects of the whole medical curiculum, and is therefore likely to be fairly well up. Now, I imagine that a little judicious presure on the part of the Colonial authorities, with the British Medical Council, would convince them of the reasonableness of our claim. It does seem a disgraceful anomaly that a graduate of one of the largest Universities, of one of the most extensive and important British possessions, and M. C. P. & S., Ontario as well, should have to play second fiddle here, to a Brussels M.D. who is allowed to register it. Let your College do its duty, and extend its sheltering arm to its members abroad; let it be a privilege as well as an honor to remain a member; this is the best way to obviate the necessity of your Registrar touting for subs.

Yours,
Doubly Qualified in England and Canada.

London, Eng., March 26th, 1892.

TORONTO GENERAL HOSPITAL.

Annual Report of Medical Superintendent for Year 1891.

The following notice appeared in the May number of the *Buffalo Medical and Surgical Journal*:

"The Toronto General Hospital has lately issued its annual report for the year ending September 30th, 1891. It is a handsome brochure of 107 pages, illustrated with lithographs and woodcuts of the hospital buildings as they formerly appeared, and as they now look with the improvements recently made. Besides the ordinary record of cases treated and their several classifications, there are divisions of the report relating to medical education, history of the hospital, description of the hospital buildings, and a roster of the trustees from 1853 to the present. The ambulance service is given in detail with illustrations, and, finally, the annual report of the training school for nurses is added. Taken all together, this is one of the most complete and useful hospital reports that we have seen, and reflects much credit upon all concerned in that institution, and especially upon the medical superintendent, Dr. Chas. O'Reilly, who has held the position for more than sixteen years.

"It seems to us that this is the proper way to govern a hospital, in order that its patients may receive the full benefit of the most skilful attention. A medical superintendent who is fitted for the work will be obeyed and respected, when others will not, and thus insure perfect subordination in all the various departments."

We are glad to endorse the above, and are pleased that our brethren across the line take so active an interest in our institution. The report contains very full and valuable statistical tables, and reflects great credit upon Dr. O'Reilly, the able and efficient superintendent.

Golden Rules of Surgical Practice.—*Continued.*—(*Times and Reg.*):—

Burns.—Do not neglect opium for the shock of burns in children, but use it cautiously; afterwards do not stint fresh air, food or warmth.

Never give a hypodermic in burns of children; you cannot recall it. Give it by the mouth.

Beware of strong application of carbolic oil in burns, and if it be used at all, watch the urine for absorption signs.

Do not dress too often ; but never let the dressings foul.

Never uncover the entire wound at once ; do it piecemeal.

Never omit chloroform or opium in the first dressing of extensive burns.

DISLOCATION.—Never attempt to reduce a dislocation of humerus in an old person without first examining the state of the arteries to inspire you with caution and gentleness.

Never put a *booted* foot in the axilla to reduce dislocation.

Always reduce by some other method if ribs are broken on the same side.

Remember that injuries to the elbow joint are often very difficult to diagnose, if much swelling co-exists ; but :

Never give a positive opinion of an elbow joint until you have carefully examined the relations of the olecranon, internal and external condyles, and head of radius.

Remember that in dislocation at the elbow the joint becomes rapidly irreducible.

Never forget that a faulty diagnosis may cause loss of motion in the joint.

Never be ashamed to say you "do not know" until the swelling has subsided, and you are able to be certain of the character of the injury.

Do not forget in dislocation of the carpal bones that the great point is to see that the motions of the fingers are early restored.

EAR.—Never forget that rupture of the membrana tympani, or even fatal consequences, may ensue from roughness.

Never forget that vegetable substances swell in the auditory canal on the application of water.

Remember no foreign body in ear, except living insects or vegetable substances, can do harm. Syringe gently, unless the foreign body is likely to swell.

A NEW TREATMENT FOR HICCOUGH.—Dr. Leloir, of Paris,, describes a new treatment for hiccough, which he first applied some years ago. He had been called to treat a girl aged twelve, who had suffered for a year from incessant hiccoughing, which occured about every half minute, interfering greatly with nutrition and sleep. Nearly all the different antispasmodics had been recommended without success. Dr. Leloir then thought of strongly compressing the left phrenic nerve between the two sterno-clavicular attachments of the sterno-mastoid muscle. Digital compression, which was very painful, was used for three minutes, after which the hiccough completely disappeared, and has never recurred. During the last five years he has used this method several times in acute and chronic cases of hiccough, compressing the nerve for a few minutes, with complete success.

MORPHINE PARTIES IN PARIS.—The Paris correspondent of the *Tribune* in a recent letter wrote that he had just come from a lecture on morphine mania by Dr. Durand-Fardel. The lecturer spoke of this kind of intoxication as having stolen first on the wealthy, and now as spreading so fast to the less rich classes as to threaten to bring France to the level of China and Turkey. He showed a hypodermic syringe which was really an article of jewelry. One end was a pencil to note down dance engagements on ivory tablets, and the other end a hypodermic injector. The casewas enriched with brilliants, and the tablets were attached to a ring, jewelled also, which was to be worn on the finger of the person intending to use the little instrument. He found in many instances that the initiation began at social meetings where a select company gathered to make experiments and to relate sensations.

WE HOPE IT IS.—Donovan's solution of iodide of arsenic and mercury is said (*Med. Rec.*) to be of material service in the treatment of gleet. It is given for this purpose in the dose of ten minims, three times a day. A correspondent writes that he feels justified, so uniform has been his success in controlling a chronic urethral discharge by Donovan's solution, in calling the remedy almost a specific for gleet.

PHYSICIANS AS FREIGHT.—The Ohio Legislature has recently passed a law providing that physicians in the discharge of professional duties shall be permitted to ride, at their own risk, upon freight trains between stations where such trains stop, paying therefore the regular passenger fare.

CHLOROSIS.—Dr. Pick (*Wiener klin. Wochenschr.*—*Med. and Surg. Rep*), basing his procedures upon the supposition that chlorosis is due to an auto-intoxication by toxines absorbed from the stomach, washes out the stomach, in the morning, and administers immediately afterwards, some preparation of iron. With this treatment he has been able to get results in three or four weeks, where, under the ordinary method of administering iron, no results would be obtained for months. If this fails he prescribes:

R—Creasote, ...	cgms. 5.
Sugar of milk, ...	" 30.

Sufficient for one capsule. Take one capsule immediately after each meal.

PERTUSSIS.—Bromoform is an excellent remedy in whooping-cough, and easy of administration in a little sweetened water. For a child two years old the dose is one drop five or six times a day, which may be increased The good effects are often brought about within twenty-four hours, and a cure may be had in some cases in two or three days to a week. The liquid is heavy like chloroform, but has no bad taste. When given in water it sinks to the bottom of the spoon in a globule like a small shot, but with care the child will easily swallow it.

IRRITABLE BLADDER (*Med. and Surg. Rep.*):—

R.—Potassium citrate, . . .	gr. iv.
Fluid ext. triticum repens,	
Tinct. of hyoscyamus, . .	āā ℥ j.
Fluid ext. of buchu, . . .	℥ ss.
Water sufficient to make .	℥ iij.—M.

Sig.—One teaspoonful in wineglassful of water, three or four times daily.

TO CHECK MILK SECRETION IN MASTITIS.—An ounce of camphor dissolved in three ounces of turpentine has been used (*Med. and Surg. Rep.*) in Columbia Hospital for Women, to check secretion of milk in mastitis. It relieves pain, diminishes induration, and reduces inflammation. Care should be taken that the part should not be so tightly covered that the application shall produce irritation of the surface.—*Med. and Surg. Rep.*

PERSONAL.—Dr. Price Brown has removed from 10 Carlton St., to his new residence, 37 Carlton St.

ANOTHER LOCAL ANÆSTHETIC.—Dr. E. Staver recommends (*Deutsche Med. Zeit.*) the following local anæsthetic for minor operations:—

R.—Cocoaine, ...	5 grains.
Antipyrin, ...	15 grains.
Aquæ, ...	100 grains.

It is claimed that this anæsthetic acts longer, and with more intensity than cocaine alone. The same mixture was used with success in a case of obstinate vomiting.

Books and Pamphlets.

A TREATISE ON BRIGHT'S DISEASE OF THE KIDNEYS; its Pathology, Diagnosis, and Treatment, with chapters on the Anatomy of the Kidney, Albuminuria, and the Urinary Secretion. By Henry B. Millard, M.A., M.D., Fellow of the Academy of Medicine of New York, etc. Numerous illustrations. Third edition, revised and enlarged; pp. 322. New York; William Wood & Co. Toronto; Carveth & Co. 1892.

This new edition contains much that the author has observed since the appearance of the second edition, which has now been exhausted nearly three years. Notably in chap viii. the author makes a complete change in his writings on the significance of the existence or non-existence of albumen in the urine. Then he was inclined to believe in the so-called physiological albuminuria. Now he says that "Constant new researches and experiments extending over a period of six years . . have led me to change my opinions entirely relative to the occurrence of albumin in health."

Much new matter has been added; on puerperal albuminuria; the ocular lesions and mental disturbances attendant upon Bright's disease; the use of anæsthetics in nephritis, and many other matters of the greatest importance to the practising physician and surgeon. The wood-cuts are better than the average, and the letter-press all that can be desired. The author has succeeded, we think, in making a *useful* handbook and compendium of Bright's disease, one of practical value to the physician in aiding him to comprehend and to manage from the foundation, the pathology and treatment of this very common affection, and to aid, if possible, in benefiting, not simply easily curable cases, but those especially which seem but little hopeful.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

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Original Communications.

REPORT OF THREE CASES OF MALFORMATION OF THE FEMALE ORGANS OF GENERATION, WITH REMARKS.*

BY A. VANDERVEER, M.D.,
Professor of Didactic, Clinical and Abdominal Surgery, Albany Medical College, Albany, N. Y.

Mr. President and Gentlemen of the Ontario Medical Association,—Surgical diseases of women at the present time are so well understood, such clear and practical advances have been made within the past few years in the treatment of all lesions that pertain to the female sex, that, in presenting the following cases I know I am not offering any particularly new or striking problem for the seekers into all that comes under the realm of gynæcology, yet I believe they are worthy of presentation, and to go on record as a bit of additional knowledge on the subject of gynæcological practice.

CASE I.—February 2nd, 1891, I was requested by Dr. Hun to see in consultation, Miss ——, aged 17 years, who gave the following history: Presented the appearance of a well-developed, healthy girl, face showing a very pronounced case of acne. She had for two years given symptoms of menstruation at each monthly period, but had never menstruated. She had been examined by Dr. Lusk, of New York, who very kindly wrote me afterwards as to his diagnosis, that of possible presence of the ovaries, with much doubt as to the development of the uterus. On examination I found the breasts well developed for a girl of that age; the external labia and orifice of the urethra absolutely normal; development of the hair about the mons normal. There was a slight discharge from a small orifice connected with the inner portion of the right external labia, partially from above, on pressure causing a pus-like substance to exude. She was given an anæsthetic, and on making a thorough bi-manual examination, with one finger in the rectum, the other hand pressing over the hypogastric and inguinal regions, I could feel some trace of an ovary on the left side, yet was unable to make out the neck or body of the uterus. Did not pass a finger into the bladder, passed in a sound, and could feel it through the tissues, per rectum, but it did not afford much assistance in the diagnosis. After further consultation with Dr. Lusk, it was thought best to attempt an operation for possible finding of the cervix by formation of a vagina. With the assistance of Drs. Townsend and Hun, patient being thoroughly anæsthetized, I began an external incision by means of the flat point of the thermocautery, starting just below the meatus and extending back in the median line to within about an inch of the anus. Having penetrated to nearly the distance of an inch, I then dissected carefully with a scalpel and serrated scissors, and opened up a vaginal passage three and one-half inches in length. I then found by introducing finger in rectum, and with sound in bladder, that my incision was getting dangerously close to both the rectum and bladder, and felt it unwise to go farther. By the most earnest efforts I failed to detect any development of the uterus. An earnest effort was now made to keep this artificial vagina open by means of bougies and the wearing of a stem pessary, but it was found very difficult to do so. At the present time it is almost entirely closed. I may say that this has been the experience of many other operators. During past eight months patient has suffered every month from all the symptoms of menstruation, much pain through abdomen, much dizziness of head, and, at times, an almost complete loss of consciousness. Her case has been fully explained to her and her parents, and she has expressed a strong desire for relief. I have recommended to the family an abdominal incision, and removal of whatever could be found of the uterine appendages, believing it would be wise to bring about an early menopause, thus saving her the suffering that comes each month, evidently an attempt on the part of nature to establish menstruation. This information was conveyed to Dr. Lusk, their family physician, who endorsed it fully and emphatically, and which met the approval of her family. I presume the operation would have been done by this time but for the patient having contracted an eruptive fever which has confined her to the house for the past six weeks. That such an operation is preeminently proper in this case, is my firm conviction.

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* Read before the Ontario Medical Association, June, '92.

CASE II.—Miss H. A. M., aged twenty-seven, native of U. S., housekeeper by occupation. Admitted to Albany Hospital October 1st, 1891, with the following history:—Mother had suffered for many years with chronic diarrhœa; father well. Patient has had all the diseases of childhood, but has never menstruated. Since about thirteen years of age has had irregular intervals of pain in abdomen, back and head, with tympanitis, also sympathetic trouble with stomach, all of which would last for a period of three or four days; would suffer from intense headache, face and head becoming much congested during these periods. Looked upon them as her "unwell" symptoms, but never had any discharge from vagina or elsewhere. No vicarious menstruation ever observed. Suffered at times from irritation of the bladder, whenever exposed to sudden changes of heat or cold. In the beginning of 1889 she had a severe attack of cystitis, accompanied with very frequent and scanty micturition. The first week in November, 1890, after prolonged suffering, an abcess formed in the left side of the pelvis and inguinal region, which opened and discharged of itself. Soon after another abcess formed in the median line, just above the pubes, which gave her much pain for the period of two weeks, but then discharged and both sinuses healed apparently well. At present patient suffers much from pain in back and head, and a full, bloated feeling of the bowels, particularly at night. Upon careful physical examination she presents a perfect development, as regards chest; the mammary glands are fully developed, and she has in every way the appearance of a perfect woman. External and internal labia perfectly formed; normal appearance of hair on mons; all the organs of generation are well developed and the vagina of normal length, but on careful examination no trace of the cervix can be made out, nor by the use of speculum can any point of depression be observed that would indicate an opening into neck of the uterus. Careful bi-manual examination, anteriorly and posteriorly, through the rectum, failed to discover any evidence of the uterus whatever, but she had, what I believed to be, a normal ovary on the right side. Her condition was fully explained to her and the danger of an abcess forming and breaking into the peritoneal cavity was presented with its dangers, which the patient says, she being an intelligent woman, she has always considered. She then stated shat she had come to the hospital for an operation, more particularly, if possible, to bring about her change of life, and to relieve her of the possibility of any function of the ovaries being performed. She was very anxious to get rid of the symptoms which presented each month and which gave her so much distress. An abdominal section was suggested, to which she readily consented, and, after proper preparation, the operation was performed October 8th, 1891, On reaching the pelvic cavity only the very slightest trace of the uterus could be discovered. There was a well developed ovary on the right side with a short, contracted Fallopian tube, but scarcely any development of a true, broad ligament, the ovary itself undergoing cystic degeneration. This was carefully removed, and on examination of its surface afterwards there was seen the remains of a recently ruptured Graffian follicle. On the left side were found a number of adhesions, but no ovary or tube discovered, though vigorous efforts were made in that direction. Patient recovered very well from the use of the anæsthetic, but suffered severely from nausea and vomiting for three days, then gradually made an excellent recovery. Wound completely closed without any complications whatever, and she was able to sit up on the fourteenth day. Returned to her home in Vermont on sixteenth day after operation. Six months after this, patient was in very much better health than she had ever been.

CASE III.—Miss Maggie M., aged nineteen. I was requested to see her by Dr. W. H. Bailey, Feb. 5th, 1892, following history being presented by the patient and her mother:—Parents healthy; began at the age of fifteen to have well-marked symptoms of menstruation about every month, but has never had any menstrual discharge. Has suffered very much at times from abdominal pain, and on two occasions had what was believed to be inflammation of the bowels. Two years ago when living in the interior part of the State she was told her true condition and advised to visit me for operation. However, did not avail herself of that advice, and continued under treatment of three or four physicians, who saw her at different periods, and the last one who treated her, six months previous to Dr. Bailey being called in, pronounced her case one of pregnancy. For the past month she has suffered almost constantly from abdominal pain and has lost in flesh. When Dr. Bailey was called, the day previous to my seeing her, with him in consultation, he made a careful examination and diagnosed imperforate hymen. On examination I found her with an abdomen equal to that of a woman at the seventh month of pregnancy, somewhat tender on pressure, of a uniform enlargement, and scarcely giving a sense of fluctuation. On examination of the external organs of generation everything appeared normal, with the exception that the hymen was imperforate, and a fluctuating mass could be felt through it.

Her case was explained to herself and family, and an operation urged, but permission was not granted until two days afterwards. Then I made a free incision in the central portion of the hymen, having previously introduced a trocar and allowed about a quart of dark, molasses-like fluid to exude, then I opened and about the same quantity of fluid was allowed to discharge, when the tumor in abdomen disappeared; parts were thoroughly washed and cleansed with a solution of 1-2000 bi-chloride, which was kept up daily in the after treatment by Dr. Bailey. She made an uninterrupted recovery, menstruated in March and April, and presents now the apperance of normal health; has regained her flesh and color and presents a marked improvement in her condition.

When we consider the fearful mortality that has attended cases like the last, as spoken of in our early text-books, it would seem proper that a careful consideration of the method of treatment should be gone over, and perhaps one of the most valuable recent additions to our knowledge of this subject, is a paper published by Dr. Krug of New York, giving a report of a similar case, and what he suggests as the best method of treatment. In these suggestions I quite agree, that the patient should be fully placed under the influence of an anæsthetic, take out a portion of the hymen, make a thoroughly free opening, then cleanse out the entire uterine cavity, washing out thoroughly with an antiseptic fluid; pack with iodoform gauze, repeating this as may be necessary until the uterus is thoroughly contracted and everything put in normal condition. This is a method I would certainly follow out in another similar case. The mortality has been greatly caused by the septic condition that comes from making too small an opening, and then not washing out carefully afterwards with antiseptic solution, allowing pus to form, and causing sepsis to occur by the dilated tubes carrying this condition directly into the peritoneal cavity.

I have presented these cases, not because of any especial credit due for treatment, or suggestions as regards line of treatment, but because they are somewhat rare, and, in our present advanced methods of the treatment of gynæcological cases, while little is to be offered new, yet when now and then a thought can be suggested it seems proper we should gather up whatever comes in the way of practical experience and present it for the careful consideration of our brethren.

ABSTRACT OF PAPER ON CHLOROFORM INHALATION.*

BY DR. H. A. M'CALLUM, LONDON, ONT.

The paper dealt fully with the causes of blood pressure, "Asphyxia," "Shock," and "Syncope." The heart was shown to control blood pressure directly and indirectly in the normal state. It was also shown that the heart had important relations in asphyxia. The speed with which this latter condition could be induced, or the success at resuscitation depended largely on the integrity of the circulatory apparatus.

The report of the second Hyderabad Commission was criticised on the two following points (1) That chloroform in ordinary inhalation did not depress the heart; (2) That this drug did not possess any danger to patients with "fatty heart." With regard to the first point, the experiments of Drs. Shore and Gaskell (*British Medical Journal*, Nov. 21st, 1891), were cited to show beyond doubt that the constant lowering of blood pressure under chloroform was due to the drug depressing the heart. It seemed probable that this was effected by the depressor nerve (being brought into action by the heart) acting on the vaso-constrictor centre in the medulla. By inhibiting this centre the blood pressure was lowered to suit the cardiac strength. As these experiments left no doubt about this depressing action on the heart, a claim was made that such action of the drug was always a source of danger, and given a patient with an idiosyncrasy, a fatal result would follow chloroform administration.

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*Read before the Ont. Medical Association, June, '92.

With regard to the danger of chloroform to patients with fatty hearts, the paper pointed out that the commission drew their conclusions from "Phosphorous Hearts," a degeneration that apparently does not correspond with that slow change from multiple causes found in man. It was further agreed against the commission's results that their report was based on deaths which, with few exceptions, occurred in profound narcosis. For the purpose of discussion, the dangers occurring in chloroform administration were classed as those belonging to (1) excitement, (2) anæsthesia, (3) profound narcosis, (4) recovery. The dangers of the first stage were syncope, asphyxia, shock. On account of the unstable condition of the nerve centres in this stage, syncope was common, and should be treated by lowering the head, artificial respiration and hypodermic injections of digitalin. Asphyxia might be from laryngeal or nasal obstruction, and is to be treated by opening the mouth and turning the patient on the side. Spasm of respiratory muscles was not regarded as a possible cause of asphyxia.

In the stage of anæsthesia the danger consists in the risk of running into the next stage, that of profound narcosis. Rarely the second stage of comparative safety is almost absent; no sooner do some patients enter it, than they begin showing alarming symptoms. In the stage of profound narcosis one runs a great risk of paralysing the centres presiding over respiration and circulation. Care should be exercised to keep the patient out of this stage. The centre most frequently to give way is that of respiration. The treatment here is hypodermic injections of strychnia in full doses, and artificial respiration. In the stage of recovery, on account of the heart being dilated as pointed out by Prof. McWilliams (*British Medical Journal*, Oct. 11, 18, 25th, 1890) syncope is most dangerous. The head should be lowered, hypodermic injections of digitalin and strychnia, along with artificial respirations.

Shock should be treated by morphia and heat. Alcohol is dangerous to patients recovering from chloroform or ether.

The author of the paper urged the advantage of digitalis before giving the anæsthetic; (it abolished much of the "after sickness" of the drug); and the necessity of keeping the hypodermic syringe with a solution of strychnia ready. Vagus inhibition it was claimed could never permanently arrest the heart. The advantages of watching the respiration and face were strongly urged. The autopsy reports of two patients who died of chloroform were given. One of these died 36 hours after anæsthesia. The other (in the practice of Dr. Fulton, St. Thomas), died during the stage of recovery from the anæsthetic.

Reports of Societies.

THE ONTARIO MEDICAL ASSOCIATION.

The 12th annual meeting of the Ontario Medical Association was called to order at 10 o'clock a.m., on Wednesday, June 1st, 1892. The President, Dr. R. A. Reeve, Toronto, in the chair.

Dr. A. H. Wright, Toronto, opened the discussion in Obstetrics by a paper entitled "The Third Stage of Labor." Dr. H. S. Griffin, Hamilton, regretted that the lateness of his train prevented his hearing the first part of the paper. He also felt a certain regret that he was unable to oppose, for purposes of discussion, those points which he had listened to. Haste in removing the placenta was usually disastrous if practised in any other manner than the method proposed by Crede. The expectant plan should to a certain extent be always associated with Crede's method. Expulsion of the placenta from the uterus was a definite procedure, and, as a rule should not be hastened, while the expulsion from the vagina was indefinite and should generally be assisted. The best means, he said, was by firm pressure with the hand upon the fundus, directed almost directly backwards. The placenta should then be rolled several times, the membranes twisted into a rope and gently coaxed out. The parturient canal was practically aseptic, unless sepsis was introduced from without. Intrauterine douches were to be deprecated unless the time should come that symptoms of sepsis presented themselves, when they should immediately and thoroughly be made use of. In conclusion Dr. Griffin stated that perfect cleanliness and coaptation of the external parts formed the total local treatment called for after the delivery of the placenta.

The report of the committee on Necrology being the next order of business was called for. It was read by Dr. J. D. Macdonald, Hamilton, Chairman, and is as follows:—The committee begs to report the death of the following members of the Association which have occurred since its last meeting. Dr. George Tye, of Chatham; Dr. Alex. T. Carson, of Toronto; Dr. Thomas A. Keating, of Guelph; Dr. Hugh Robertson, of Toronto; Dr. Jas. Ross, of Toronto. All these were men of mark, both in this Association and in the communities in which they severally moved.

Dr. Tye has been a familiar figure to us ever since the Association was formed. He has always been one whose assistance in its discussions was looked for, and much valued. His observation was known to be acute, and his conclusions were therefore greatly trusted. His unassuming demeanor drew to him the attachment of his associates, and his quiet energy secured their respect. Of all our members, he seemed to be one of whom we had least cause to expect that he would scarcely have become the subject of such a notice as the present. Dr. Tye died of phthisis on the 23rd of July, 1891.

Dr. Alex. Tertius Carson was the son of an Irish physician, who seems to have highly appreciated the value of a classical training as a foundation on which to build professional character. There were many such among the older physicians, remembered by some of us, and there would be many still, but that practical science has greatly displaced the classics as subjects of professional study. Dr. Carson, of Toronto, has been said to have been a man whose culture and professional skill gave him a high place in the esteem of his many friends in the city, and secured to him as a physician their great confidence. His death took place on the 31st of August, 1891, at Heidelberg, Dr. Carson having gone to Europe in the endeavor to obtain improvement in his health.

Dr. Thomas A. Keating died suddenly in his office, whither he had not long entered, on the evening of the 15th of March. He seems to have sat down at his desk. He was found dead and somewhat injured by fire, due apparently to the upsetting of his lamp, when, death coming, the body had fallen from the chair and come in contact with the burning oil. Dr. Keating had practiced many years in Guelph and obtained a high reputation; his professional skill giving him the confidence of the community, not only of the city wherein he dwelt, but also of the surrounding country for a great distance. Dr. Keating had been the subject of heart disease for some time.

The death of Dr, Hugh Robertson, from diphtheria, has in it an especial element of interest and of sadness, inasmuch as he contracted his illness from his child while in attendance upon it, as it was suffering from that disease. It is an instance of a valuable life lost from a preventable cause. Our deceased friend would possibly been a little displeased had the thought been suggested of sending his little one away from his own care in its sickness; but a disease so contagious and so deadly seems to require that our parental instinct of sympathy with our children in their danger and distress should yield to the necessity of separating the infected from the healthy, and of sending the little subject of disease away from our families, and from ourselves, for a time. An opportunity here offers for this Association to declare itself on the subject of isolation in infectious diseases, and most of all in diphtheria, one of the most common of them, and one of the most deadly, and to direct attention to the benefits of isolation hospitals. Those serve to save the healthy from infection. They have appliances always at hand and favorable conditions for their employment. Time, in them, is saved, and life more surely preserved,; many a case of diphtheria being quickly brought under control, which in the home as quickly becomes unmanageable. Dr. Robertson's death took place on the 24th of March, 1892.

Dr. James Ross, of Toronto, has been well-known for many years as an industrious and successful practitioner, devoting himself chiefly to the obstetric branch of the profession. He was as self-forgetful as he was untiring in his work during the forty years in which he practiced in this city as a physician, and performed important public duties as a citizen. Whether as a physician or as a citizen, he rendered faithful service, and his fellow-citizens, no less than his professional brethren and friends, have cause to acknowledge his usefulness, and regret his loss. Dr. Ross was attacked early in the year by epdiemic catarrh, from which he had not perfectly recovered, when ne contracted pneumonia, to which he succumbed after five days' illness, dying on the 2nd of April, 1892.

The adoption of the report being moved and seconded it was carried.

The discussion of Dr. Wright's paper continued. Dr. Preston, of Newboro, remarked that he differed from Dr. Griffin with regard to the time allowed to elapse before the removal of the placenta from the vagina after its expulsion from the uterus. He (Dr. Preston) thought it should be removed at once and not be allowed to remain plugging up the vagina.

Dr. Arnott, of London, was followed by Dr. Geikie, of Toronto, who emphasized the desirability of neither being in too great a hurry to remove the placenta after delivery, on the one hand, nor allowing it to remain too long in the vagina, on the other. Allowing it to remain too long, as well as removing it too speedily, tend to postpartum hæmorrhage. The application of the broad bandage around the abdomen, with compresses over the contracted womb Dr. Geikie held to be of great value—and as soon as this has been done, Dr. Geikie holds it to be of great value in preventing post partum hæmorrhage, to remove all clots from the vagina and os uteri.

Dr. Cotton, of Lambton Mills, was followed by Dr. Moore, of Brockville, who said :—"I am in favor of antiseptic douches, no matter whether we have a rise of temperature or not, always beginning on the second day, not later than the third. I do not remove the placenta immediately, but rather wait, carefully keeping fairly firm pressure over the uterus until I find the placenta coming away. If I find an adherent placenta I remove it, using all the antiseptic precautions. I think that douches should be used both before and after the labor. The parturient canal should be rendered aseptic and kept so. All clots should be removed from the vagina and a firm bandage applied. No traction should be made on the cord. The douche should be given gently, not forcibly. I use bichloride of mercury, one to four thousand, and never had any rise of temperature to amount to anything, and no blood poisoning. Never use carbolic acid."

Dr. Lapthorne Smith, of Montreal, said that he though this a very important subject, and it was one that had caused him a great deal of anxiety. He was in favor of allowing nature a little time to enable the uterus to expel the placenta. He used Crede's method but did not approve of pulling hard upon the cord, but he always gave a dram of the best fluid extract of ergot. He used douches of hot water in every case because it made the woman comfortable. He never used bichloride because he had seen cases of poisoning from its use.

Dr. J. D. Macdonald, of Hamilton, said :—"I do not venture to instruct where so many experts have spoken, but I wish to say that the old ways of managing this stage were not so different from those at present recommended. We did not know of the value of antiseptics until lately, but we always knew the virtue of soap and water, and I believe that if we do not ourselves introduce impurities on our fingers or on our instruments, there is little fear of the passages becoming septic. The placenta may be gently drawn upon as soon as the child is separated and handed to the nurse, but a touch will be sufficient to let the physician know whether it is separated or not. If it is not, let it alone for half an hour, generally by that time it is in the vagina. Avoid force, and do not introduce the hand unless there is urgent need. The poor woman has had enough without that experience. I never had the experience of Dr. L. Smith of leaving the placenta for hours; I do not think I have had more fatality than other men."

Dr. A. H. Wright in closing the discussion said, "I am quite in accord with Dr. Geikie in urging the necessity for the avoidance of undue haste, and also agree with him in thinking that the ordinary obstetric binder adds to the comfort and safety of the patient, but I believe that a pad in the majority of cases is worse than useless, because as ordinarily used, it generally becomes dislodged, and that simply displaces the uterus. While I agree with much that Dr. Lapthorne Smith has told us, I desire to express a very positive opinion that it is never safe to leave a patient before the expulsion of the placenta. We know from the observations of Schroeder and others, that the placenta, in the great majority of cases, is expelled from the cavity of the uterus within 15 to 20 minutes. It may lie in the vagina for a long time if we do not assist expulsion, but I consider it absolutely necessary under such circumstances to watch the patient carefully whether we adopt the Crede or the expectant plan of treatment. I object to the use of ergot before the termination, or at least before the placenta has left the cavity of the uterus; have seen it produce tetanic spasm of uterus which causes severe pain to the patient but no expulsive efforts. I was much interested in the remarks of Doctors Griffin and Moore with reference to asepsis, antiseptics and douches. Our ideal method would probably be as nearly aseptic as possible; but, in actual practice I think it well to have antiseptics for external use, especially for the hands and instruments. The use of such antiseptic agent as bichloride of mercury for douches is attended by grave dangers.

I have very strong objections to what may be called fussy antiseptic methods, such as those advocated by Thomas and others some years ago. I object also to the routine use of douches after labor. They disturb that physiological rest which is so necessary for the repair of such wounds as those of the cervix. They frequently cause much pain; they become a possible vehicle for the introduction of septic matters. This discussion has perhaps taken a wider scope than the paper included, but I think it has not been any less interesting on that account."

At 1 o'clock many of the members availed themselves of the invitation by the Hospital Trust to inspect the Victoria Hospital for Sick Children. The Association re-assembled in general session at 2 o'clock, the President in the chair. The minutes of the morning session read and approved. Dr. R. A. Reeve, President, read his address, at the conclusion of which the discussion in Medicine was opened by Dr. A. S. Fraser, of Sarnia, with a paper onthe "Diagnosis of Diphtheria." He was followed Dr. W. Britton, of Toronto, on the treatment, and Dr. Harrison, of Selkirk, on the etiology. As Dr. Wright, of Ottawa, was absent, the discussion here closed. The papers will appear in a subsequent issue of the CANADA LANCET.

Dr. H. O. Marcy, of Boston, President of the American Medical Association, was invited to the platform and introduced to the Association by the President, meeting with a hearty reception.

Dr. J. A. Williams, of Ingersoll, President of the Ontario Medical Council, addressed the Association in an able manner upon "Recent Medical Legislation and its Effects." On the motion of Dr. Powell, of Ottawa, seconded by Dr McFarlane, Toronto, he was allowed to complete his remarks, which he did in about an hour. At the conclusion D.r A. A. McDonald, Toronto, seconded by Dr. A. B. Welford, Woodstock, moved that a cordial vote of thanks be accorded Dr. J. A. Williams for his clear, able and eloquent address, and that we, the members of the Ontario Medical Association, cordially endorse the sentiments he expressed, and heartily support the action of the Ontario Medical Council. Carried unanimously. (See Report of College of Physicians of Ontario in this issue.)

MEDICAL SECTION.

It was moved and seconded that Dr. Arnott, of London, take the chair, and that Dr. Clouse, of Toronto, be appointed Secretary. This was adopted.

A paper on "Puerperal Eclampsia" was read by Dr. Raikes, of Midland. In the discussion which followed, Dr. Rice, of Woodstock, said,—"I have had two cases in eight years. The first case occurred at five months. Had two convulsions before I saw her. I at once gave chloroform and bled, taking away twelve ounces of blood. No convulsious occurred after that. I produced an abortion. The woman recovered completely. Second case. Woman aged forty; first child. I was called at ninth month. Convulsions ensued. I gave morphia, chloroform, castor oil, and pilocarpine. Patient never regained consciousness. If the patient be full blooded I would bleed and give morphia sufficient to keep patient quiet."

Dr. Arnott, of London said, "There are two principal causes for puerperal eclampsia—albuminuria and nervous irritation. This sufficiently indicates the treatment. As soon as albumen is discovered in the urine of a pregnant woman, diaphoresis should be induced as rapidly as possible, and for this purpose I would very much prefer the steam bath. At the same time the bowels should be moved freely by some such agent as pulv. jalapæ co. In the cases which depend upon nervous irritation a hypodermic injection of morphia, chloroform, etc., should be used. If this simple line of treatment be adopted, a very large proportion of cases will recover and many of the children be saved."

Dr. J. Olmstead, of Hamilton, read a paper on "Brain Injuries" which was discussed by Dr. J. E. Graham, of Toronto, who said that Dr. Olmstead deserved the thanks of the meeting for the clear and lucid description of his case, and that we quite agreed with him in the diagnosis he had made. He spoke of the benefit obtained by the administration of iodide of potassium in large doses in tumors not syphilitic. This beneficial effect, however, was not permanent. Sooner or later the unfavorable symptoms returned. He spoke of a case which he had under observation seven or eight years, in whom he had at first suspected tumor of the cerebellum. That suspicion had, however, disappeared until a few weeks ago the patient returned with even more decided brain symptoms. He had observed three or four cases of cerebellar tumors which were verified by post mortem examinations. In one the symytoms were very similar to those of the patient now before us. He requested Dr. Olmstead to state his views with regard to the presence of optic neuritis in tumor of the cerebellum.

Dr. Olmstead replied and closed the discussion.

The chair was here taken by Dr. McDonald, of Hamilton.

Owing to the absence of Dr. Greig, Toronto, through illness, his paper on "Disinfection after Infectious Diseases," was not read.

Dr. J. Duncan, Toronto, then read a paper on "Whooping Cough, treated by one of the Newer Methods." This paper was discussed by Dr. J. D. McDonald, Hamilton.

SURGICAL SECTION.

This Section met in the Examiner's Room. Dr. T. K. Holmes, of Chatham, and Dr. Primrose, of Toronto, were respectively appointed Chairman and Secretary of the Section. Dr. A. B. Atherton, Toronto, read a paper on "Suturing of External Popliteal Nerve," and presented the patient.

Dr. B. E. McKenzie, Toronto, who had assisted Dr. Atherton at the operation, said that he had not seen the patient for some time, and now noticed considerable improvement in the circulation. He also stated that there was great difficulty in recognizing the ends of the divided nerve during operation, but that so far the result of this case was eminently satisfactory.

Dr. Powell, of Ottawa, congratulated Dr. Atherton on the result so far, and said that he thought further improvement might now be made before further contracture takes place.

Dr. Whiteman, of Shakespeare, said, that judging from similar cases and results, he would keep up continual rubbing and passive movement rather than forcible bending which has been advised.

Dr. Holmes, of Chatham, said, "When we consider the importance of the functions of the joint to the nutrition of the limb, we would conclude that massage is of little use in a long standing case of ankylosis.

Dr. Atherton in reply stated that it would be dangerous to try forcible means because of the risk of interfering with the union of the nerve which was in the first instance bound down in cicatricial tissue. He would rather favor massage and passive motion in the meantime.

Dr. MacCallum, of London, then read his paper on "Chloroform Inhalation." It was discussed by Dr. Moore, who reported cases of non-narcosis and inability to produce it. Voluntary stoppage of breathing occurred, and artificial respiration was resorted to. This condition continued for two minutes ; finally the administration of chloroform was stopped, and the patient after half an hour began to breathe naturally.

Dr. MacCallum replied "Inject morphia in cases of spasmodic respiration." In Edinburgh they push the drug.

Dr. Mullin, of Hamilton, asked why the tongue be not drawn forward. He thought the tongue should be drawn forward somewhat forcibly, as it excited respiration. He again thought that the tongue should be kept all the time well forward. He referred to a case of drinking patient who was taking chloroform quickly. Patient suddenly became pale, pulseless, and respiration ceased. Result death. In the case referred to by Dr. Moore, he would, by pushing the ribs forcibly, cause the patient to breathe.

The Association met in general session at 8.30 p.m. The minutes of the afternoon session were read and confirmed. Dr. R. B. Nevitt opened the discussion in Surgery, taking for his subject "The Present Status of Antiseptics in Surgery." He was followed by Dr. T. K. Holmes, Chatham, who devoted his remarks to the sterilization of the field of operation, the hands of the surgeon and his assistants, and of the instruments and dressings that come in contact with the wound. He pointed out the advantage of steam as a sterilizing agent, and showed how by means of Arnold's Steam Sterilizer it can be utilized to the best advantage. He also pointed out the best method at present known of disinfecting the hands by the use of permanganate of potash and oxalic acid, after they have been thoroughly cleansed with soap and water. Recent experiments have proved the inefficiency of carbolic acid and mercuric chloride to destroy pathogenic germs on the hands when applied of a strength compatible with their integrity, so that their use for this purpose must be abandoned, and the plan here recommended adopted in preference to all others.

Dr. H. A. Powell, of Toronto, said that the time for discussion of the principles of antiseptic surgery had now passed. That army that had once opposed them had capitulated, and only a few stragglers continued the fight. As Lowell puts it, "The multitude now makes virtue of the faith it once denied." Going to the other extreme, the use and misuse of antiseptics had become a fad, and it must be admitted, in some instances, a successful system of quackery. Advances are to be expected chiefly in improved technique, in discarding and eliminating what is useless or worse than useless, and making it easy for the essentials to be carried out. We have now many good antiseptic methods. As in other affairs of life the good, since we are likely to be content with it, is the enemy of the best, which we should seek to attain. While we should be ready to utilize the investigations of others, as Lister did those of Pasteur, we should not forget the apostolic injunction individually, to prove all things, and hold fast that which is true. Many were content to follow the modified maxim, "If you want a thing to be well done you should pay a man who knows how to do it." Every one of us should at least know how to prepare the requisites for aseptic and antiseptic surgery, by the methods which our most recent chemical and bacteriological investigations warrant us in regarding with confidence. The speaker had for the last five years been charged with the duty of demonstrating these matters to medical students, and desired to make mention of certain procedures which he considered the best at present known. First in regard to hand and wound-area cleansing, both mechanical and chemical, he advised that in accordance with Schimmelbusch's suggestion, nail-brushes, which as found in ordinary use, swarm with pathogenic bacteria, should be boiled for five minutes in a one per cent. solution of carbonate of soda, and kept in a one to one thousand bichloride solution. Such brushes used freely with green soap, got the skin into excellent condition for the chemical sterilization by solutions made with the tablets which we all now carry, or with the most perfect method worked out by Dr. Howard Kelly, of Johns Hopkins University. This was the staining of the hands to a mahogany color with the solution of permanganate of potassium followed by the use of a hot saturated solution of oxalic acid. In sterilizing instruments, carbolic solutions are no longer required, and the damage they do to the hands of the operator can be avoided. When Davidson, in 1888, showed that boiling for five minutes under pressure, that is in a closed vessel, would absolutely sterilize instruments if they were properly constructed, we all began to test the method, and soon had samples of rusted and ruined instruments on hand. Then came the happy suggestion of Schimmelbusch, that a one per cent. solution of carbonate of soda would prevent rusting, and on this we now rely. For the last two or three years the speaker had with great saving of time and labor, used the Arnold sterilizer in the preparation of dressings and the sterilization of instruments. Saturating a piece of gauze with a one to ten solution of glycerine and water was equally efficient with the soda carb. in the prevention of rusting. A good many Ontario physicians had obtained the sterilizer from the United States, at a cost of from six to ten dollars, while they could be bought in Toronto, where the patent was owned, for half that outlay. In the preparation of silk, Dr. Powell had long used Czerny's method, by boiling in carbolic acid solution, but he had now abandoned it, and instead, he prepared it by fractional sterilization as suggested by Halstead. The silk on glass spools is simply placed in strong glass tubes loosely plugged with cotton, and steamed for half an hour on each of two days in the sterilizer, and no easier or better plan could be desired. As regards catgut, Dr. Powell had been most thoroughly content with that prepared by first scrubbing with green soap, then soaking in ether sulph., then for twenty-four hours in a one to one thousand watery solution of bichloride, and using it out of absolute alcohol. He never used large catgut, but by this plan the small sizes seemed to preserve their strength and aseptic condition indefinitely.

Time did not obtain for making reference to the irrigation, drainage, closure and the dressing of wounds, as material ample for a winter course could hardly be compressed into a ten minute talk.

Dr. G. A. Peters addressed the Association at some length on the bacteria commonly met with.

Dr. R. B. Nevitt closed the discussion.

Dr. R. B. Smith, Seaforth, seconded by Dr. A. A. McDonald, Toronto, moved a resolution of the members of the Ontario Medical Association approving of the organization recently formed of the medical officers of the Militia of Canada, and comending the Association to the favorable notice of the Minister of Militia.

The resolution was adopted.

The Association was then addressed by Dr. H. O. Marcy of Boston, President of the American Medical Association, on the "Anatomy and Surgical Treatment of Henria," an address which was illustrated by black-board sketches.

The election of the Committee on Nominations was then proceeded with, there being 184 members registered at the time the vote was taken. The Committee was to consist of 12 members. The President appointed Dr. W. P. Caven and Dr. Scadding, Toronto, scrutineers.

Dr. Spencer, of Toronto, then gave a very interesting lantern demonstration of the newer bacteria.

It being 11 o'clock, the report of the Committee on Ethics was postponed till the following afternoon.

The Association then adjourned.

THURSDAY.

The Medical Section was called to order at 9.45 a.m., Dr. A. Groves, of Fergus, in the chair. A symposium upon the pneumonias of children was introduced by a paper by Dr. W. H. Henderson of Kingston, on the "Diagnosis of Pneumonic Consolidation from Pleural Effusion," which was read by Dr. Wishart in the absence of the writer. This was followed by a paper upon "Diagnosis, of Eobar from Lobular Pneumonia, and of Pneumonia from Bronchitis" by Dr. H. J. Machell, Toronto.

While awaiting the arrival of Dr. Shaw of Hamilton, a paper on "Prognosis in Pneumonias Generally" was read by Dr. Wishart in behalf of Dr. A. Baines, Toronto. Dr. Groves then vacated the chair which was taken by Dr. Arnott of London. The discussion was opened by Dr. Powell of Ottawa who said,—"I have long been of opinion that in the routine practice of chest disorders of children, insufficient care is taken in the physical examination of the chest for the purposes of diagnosis and too much is taken for granted. After listening to Dr. Machell's very able paper going so deeply into the minutiæ of the diagnosis, I am still more confirmed in that opinion because I believe that not one man in ten takes the time or trouble to go into the minusiæ of diagnosis, I am still more confirmed in that opinion because I believe that not one man in ten takes the time or trouble to go into the minutiæ of diagnosis as laid down by Dr. Machell in his paper. I speak now of ordinary everyday work, and not of cases seen in consultation, or ones of special interest or importance. Speaking broadly, we may regard the sudden onset of a chest inflammation in a healthy strong child to be lobar pneunomia, whereas the gradual onset of lung complication during the course of, or following one of the exanthens ought always to put us on the look ont for a lobular pneumonia. If, besides the sudden illness we have short, sharp cough, rapid breathing, flushed cheeks, brilliant eyes and that to my mind is of great value,—the facial expression of distress—and all accompanied by a sudden rise of temperature, we very fairly diagnose a pneumonia, though physical examination of the chest ought to establish the fact and should never be omitted. I consider the cardinal signs of pnuemonia, often wanting, and rarely all present in children; indeed the rule is, some of them are always absent, and those that are present are usually irregular. The rigor cannot be depended upon; it is rarely present but in very children its place is often taken by a convulsion which in their case may be taken as the analogue of the rigor in the adult. The pain in the side is often irregular; in a recent case under my care the pain throughout the illness was referred to the umbilicus. Finally, I consider it is not always possible often and impossible to diagnose absolutely between lobular pneumonia and capillary bronchitis.

Dr. Saunders, of Kingston, said:—"I would add to Dr. Powell's remarks as to the substitution of convulsions in children for the partial rigor in pneumonia, that sudden and otherwise unaccountable vomiting is more frequent than even convulsions; either may replace the vigor, but vomiting probably the most frequently. With reference to the diagnosis between pneumonic consolidation and pleuritic effusion, I would lay stress in the former on the presence of bronchial breathing which is absent in effusion without consolidation; also on the transmission of the cardiac impulse felt by the fingers placed on the intercostal space of the affected side; this is not felt when the thorax is filled with a consolidated lung, but is readily perceived if the thoracic space is occupied by fluid. I would also notice the importance of delirium as a diagnostic symptom in inflammation of apex of lung in which it is almost invariably present, but not so frequent in inflammation of other parts."

Dr. Shaw, of Hamilton, was here called on to read his paper on "The Diagnosis of Lobular Pneumonia, Acute and Chronic, from Tuberculosis," and was followed by Dr. J. J. Brown, of Owen Sound, by a paper on the "Treatment of Pneumonia," and by Dr. H. S. Clarke, of Lucan, with a paper on "Acute Suppurative Pleurisy." The discussion upon all the papers was then resumed. Dr. Oldwright, of Toronto, said:—"Regarding pneumonia, I will say nothing further than that I have found great benefit in several cases at a critical period from antipyretic doses of quinine. I have heard no reference to this this morning. I have been much interested in the remarks of Dr. Shaw, regarding the spread of phthisis. Whilst the most sceptical regarding the culpability of germs must now admit theoretically the contagiousness of pulmonary tuberculosis, we do not practically act upon the knowledge as we do regarding diphtheria or smallpox. We see patients spitting on floors and in handkerchiefs; the dried sputa being allowed to disseminate in the air. In Philadelphia, owing to the efforts of Dr. Dixon, notices were posted in the street cars, forbidding persons spitting on the floors of them. Greater care should be taken to see that consumptives use a spit cup, and that the sputa be sterilized. Boards of Health should look after houses which have been inhabited by tuberculous patients, and see that they are thoroughly disinfected. Any person sceptical on the point I would refer to the diagram of Whittaker in Sajou's Annual of Medical Science, two or three years ago, showing at a glance the localization of phthisis, and the repeated occurrence of cases in houses occupied by successive families. In connection with Dr. Clarke's paper on empyema, I would again refer to the mode of treatment by the daily washing out of the pleural cavity commencing as soon as pus is diagnosed on the syphon principle, by means of a rubber tube left in the wall of the chest. The advantage of this method is that the pleural cavity remains a closed cavity, the bellows action of the thoracic walls is not destroyed, and the expansion of the lungs during the period of recovery is encouraged. I can cite cases in which patients treated by this method have been examined years afterward by other practitioners, and no difference could be detected in the action of the lungs on either side. There was no danger of the tube slipping into the cavity, as in Dr. Clarke's cases; and the slipping out could be easily remedied by replacing the tube by one of a larger size, if it should get too loose in the opening. Flocculent obstruction blocking the tube would be removed by moving the carbolized fluid to and fro in the syphon-tube. Any flakes of lymph remaining in the cavity, becoming too large to pass through the tube would do no harm."

Dr. H. A. MacCallum, of London, said:—"Œdema of side calls at once for surgical interference. It does not matter whether this is a pathogonomic sign of pus in the pleura or not. If it is, it calls for immediate surgical interference. If not, the pressure enough to produce stases of the lymph blood in skin points to stases of these in lung tissue, and there is an absolute demand for surgical interference. I do not believe in a possibility of pus in pleural cavity without germs. These may be either pneumococus, streptococus, staphylococus, bacillus coli commune or bacillus tuberculosis."

Dr. Mitchell, of Enniskillen, said:—"I am now treating two cases of suppurative pleurisy. One has been ill for nine weeks. Case began with pneumonia. Case was aspirated in three weeks and two pints of pus withdrawn. A tube was inserted and cavity was washed out by syphon method. The second, which was a case of pleurisy from the first, has been ill four weeks. Was aspirated in fourteen days from time he took chill and seven and a half pints of pus withdrawn. As large flocculi were afterwards found in cavity a free incision was made and case was treated by open method. The cases are both improving at present, but the outlook is not good on account of family history. I believe in any case no matter how treated air will be admitted into the side, therefore I prefer treating by the open method with antiseptic dressings."

Doctors Powell, of Ottawa, and Arnott, of London, also made some remarks, and the discussion was closed by Dr. Machell, of Toronto, who in reply instanced the three hundred cases recorded by Holt in which it was shown that delirium *per se* was not typical of pneumonia confined to the apex. Respecting the incision in suppurative pleurisy, Dr. Machell said that this should be free. In regard to the drainage tube, he said that he usually took a piece one inch long out of one side of an ordinary drainage tube, doubled it on itself and so obtained a double drainage tube, which was secured from slipping in by an ordinary safety pin in the end of either tube. He seldom or never, unless indicated, washed out the chest cavity, but usually applied a good large pad of absorbent gauze; over this, tarred jute or carbolized tow, over these a layer of rubber dam, and over all absorbent cotton and a binder. The rubber acted as a valve, allowing the secretions to pass out under it but not allowing the air to pass in.

Dr. H. J. Saunders, of Kingston, then read a paper on "Herpes," in the discussion of which Dr. Powell, of Ottawa, said:—"I rise for discussion because I consider it the least compliment that can be paid to a reader of a paper to allow his paper to go by default. It is quite new to me to hear any attempt made to draw a similarity between Zoster, exanthemata and the excepting in so far as the vesicles may resemble the vesicular stage of the eruption of variola. As to the pathology, it is generally admitted to be the result of an interference with the trophic nerves that pass into the roots of the spinal nerves from the spinal ganglia of the sympathetic. As a treatment, while many cases are notoriously rebellious, I have found the greatest benefit accrue from good doses of quinine —say three or four grains t.i.d. locally. I have found nothing better than olive oil, and I regard its value as due to the protective influence in guarding the eruption from air and probably water too, which are both known to be obnoxious to eczematous eruptions."

During the section meeting the general secretary announced the names of the gentlemen who had been elected upon the Nomination Committee. They were as follows:—Dr. Holmes, Chatham, chariman. Dr. J. E. Graham, Toronto; Dr. McPhedran, Toronto; Dr. Powell, Toronto; Dr. G. A. Peters, Toronto; Dr. Moore, Brockville; Dr. McKay, Ingersoll; Dr. J. L. Davison, Toronto; Dr. I. H. Cameron, Toronto; Dr. McFarlane, Toronto; Dr. B. Smith, Seaforth; Dr. J. H. Burns, Toronto.

The committee was called to meet in the north reading room at eleven o'clock.

SURGICAL SECTION.

The Surgical Section was called to order at 9.45, Dr. Holmes, of Chatham, in the chair. The papers on "Operation for Club Foot," by Dr. A. B. Welford, Woodstock, and "Dressing the Wound after Supra Pubic Cystotomy," by Dr. Groves, of Fergus, were taken as read.

Adjourned discussion on Chloroform Inhalation.

Dr. Charles Trow speaking on chloroform inhalation, said: "The hint thrown out as to cocaine being used to do away with nasal stenosis due to swelling of the mucous membrane is a good one. We throat specialists find the difficulty with cases who can not breathe through the nose, especially those having adenoids; as soon as the mouth is closed the breathing stops. In some of these cases we have to hold the mouth open and pull the tongue forward. If in spasm a clot enter the larynx, we should be ready for a tracheotomy or an intubation. Strychnine hypodermically might act well as a heart stimulant. It is very necessary to feel the pulse frequently. In many of the German hospitals they make one of the students hold the pulse during the whole operation. Prof. Billroth's anæsthetic is largely composed of alcohol, and the patients were as much drunk as anæsthetized. We should not give up artificial respiration too soon in cases that have stopped breathing, as many cases have recovered after they seemed to be hopeless for half an hour or more."

Dr. Arnott, of London, said: "The position taken by Dr. MacCallum, that alcohol has an action analogous to chloroform, and that therefore alcohol should not be administered after chloroform, as it would be continuing the action of an anæsthetic, is a most serious statement. If this be true, then we have been acting on wrong lines, and must have done immense harm by this course. not only after chloroform but in medicine as well. A year ago I read a paper advocating the view that alcohol is not a stimulant in any dose, unless indirectly by its action in allaying nervous irritation and relieving pain. Last July Prof. Wilkes, of Guy's Hospital, opened a discussion on the subject, before the British Medical Association. During the course of his remarks he incidentally said, 'Some antiquated physicians still retain the idea that alcohol is a stimulant.' In the discussion which followed, the statement was not challenged. Prof. Whitla, also, in his book recently published on Materia Medica and Therapeutics, says that we will never understand the action of alcohol as long as we look upon it as a stimulant."

"With regard to which occurs first, asphyxia or heart failure, we must understand that asphyxia may occur while the patient is apparently breathing, but is really doing so insufficiently. All indications, therefore, of imperfect breathing, should receive our careful and intelligent attention. This condition may go on for a length of time, until we suddenly have blanching from heart failure. The *post mortem* reveals a dilated heart, clot in right heart, and blood very dark. Clinically we meet with two conditions, either lividity or blanching. Either one or both of them may occur early or late. When they occur early, the probability is that the cardiac and respiratory centres lying so close together have been paralyzed simultaneously. When they occur late, I incline to the opinion that asphyxia occurs first, assisting or causing the drowning of the enfeebled heart. Practically, we should, in all cases, secure the confidence of our patients, as cases often die from fright. This occurs, when no anæsthetic has been administered, at the first cut of the knife. We should carefully examine the blood pressure of every case, as this will often induce us to examine the urine microscopically, when we will often either discern disease of the kidneys or indications warning us of degenerations of the heart and other organs. Further, I believe that a slow or incomplete anæsthesia is always dangerous. A prolonged administration saturates the system with a large quantity of the drug, which, in case of accident, takes a long time to eliminate. Incomplete anæsthesia increases all the dangers of reflex irritation.

Dr. John Odlun, of Woodstock, asked: "Would you invert the patient in all cases of suspended respiration? Do all patients who appear to cease breathing do so by the influence of the anæsthetic or do some do so by force of will?"

Dr. MacCallum, of London, in reply said:—"I do not object to pulling the tongue forward except when vomiting. The exciting effect of forcibly pulling the tongue forward can be as readily obtained by pinching the skin in exciting respiration. Spasms are not always voluntary. There seems to be in the medulla a "spasm centre," which becomes excited and may lead to general convulsions. Push your chlorform here as in eclampsia in a midwifery case. I would, as a law, advise inverting patients, in the accidents of chloroform. One cannot tell always, whether your asphyxia is primary or secondary, being due to a failure of circulation. Clinically they may look alike, and as a precaution all cases of asphyxia should be inverted along with artificial respiration, as well as injections of strychnia. I agree with Dr. Arnott, in thinking the beneficial action of alcohol is usually obtained by reason of its narcotic effect only in a narcotic dose, but disagree with him in thinking alcohol never a stimulant. Chloroform stimulates in the early stage, the nerve centres, so may alcohol, but I will not suggest that either one is ever a heart stimulant. It is safer to administer chlorform in labor than elsewhere; because, 1st, there is a physical hypertrophy of the heart. 2nd, the full uterus presses on the abdominal vessels and partially prevents syncope. Watching the pulse constantly is useless; taking it occasionally does no harm, though the face is a better guide. If the abdomen contain a tumor be careful about inverting your patient for fear of this tumor pressing on the diaphragm and partly inducing asphyxia."

Dr. Ryerson's paper on "Otitic Cerebral Abcess" was passed over on account of the absence of the writer.

A paper by Dr. G. L. McKelcan, of Hamilton, on "Angina Ludovici" was then taken as read.

The symposium on hip-joint disease was opened by Dr. Gibson, Belleville, with a paper on its "Early Diagnosis." He was followed by Dr. G. A. Bingham, of Toronto, on "Expectant Treatment"; Dr. A. Primrose, of Toronto, on the "Operative Treatment"; and Dr. McKay, Ingersoll, on "Mechanical Treatment before and after."

Dr. Groves was here called on to read his paper on "Supra Pubic Cystotomy."

Dr. B. E. McKenzie, Toronto, followed with a paper on the "Prevention of Unnecessary Deformity in Hip-joint Disease."

The discussion of the whole question was opened by Dr. Bingham, of Toronto, who said: "Traction is a prime factor in fixation of a joint. There is no objection to a patient going about with a fixation splint as soon as possible after operation."

Dr. Primrose, of Toronto, said: "Dr. McKenzie in his remarks referred to a case which had been submitted to the operation of excision, and was now probably dying of pyæmia. I operated on the patient referred to, and wish to state that the case was one of advanced hip-disease with the development of a large abcess when first brought under treatment. The condition urgently demanded surgical interference by operation, and an attempt was made by excising the joint to remove the disease and to secure free drainage. The disease was acetabular. The child's chances were undoubtedly improved by the operation, and the surgical interference is in no way responsible for his present condition. I hold that it is unfair to cite such cases as throwing discredit on operative procedure in hip-joint disease. The question really at issue is concerning the advisability of treating early hip disease by operation or by fixation apparatus. The case referred to by Dr. McKenzie proves nothing as far as the question under discussion goes. The child did badly—very badly, and one is not surprised that it is so. It is surely legitimate surgery to open an abcess when the patient is suffering acutely, and having let out the pus it is surely imperative for us to remove the cause of the suppuration if possible; if the cause lie in a diseased bone of an articulation, by all means remove it.

Dr. Dupuis said: "I have been practising all methods of cure for thirty years, the last eighteen years in the Kingston Hospital, and I see and hear nothing new to-day. I prefer a Thomas' splint for fixation of parts; traction on the limb by adhesive straps above the knee; elevation of the foot of the bed rather than perineal bands; constitutional treatment and operation for the removal of dead bone when this is present. This includes the whole treatment, both past and present."

Dr. B. E. McKenzie, of Toronto, replied as follows: "I would call attention to the figures given by Dr. Bingham, showing that about thirty-five per cent. operated on, and recently reported by Dr. Poole, have proved fatal, whereas Howard Marsh claims that by the expectant plan of treatment there is a mortality of less than ten per cent. One of the cases shown here to-day, is a girl who was referred to me by Dr. A. H. Wright, the case having gone on to supuration, and having discharged pus for some months. Treatment was carried out by means of the American traction splint, for a little more than one year. Nearly two years have now passed since the removal of the splint, and now there is no lameness or shortening, and the limb is but very little smaller than the other. Such a result cannot be obtained after operation. The most successful case is yet a maimed case after operation, and in nearly all of them there is much shortening and lameness. Dr. Primrose admitted that half the cases required the use of a stick to aid them in walking after operation and recovery. The statement made that Dr. Bingham's case was allowed to be up too soon, was based upon his remark, thal the boy was 'trotting around the ward' in three weeks after excision. Since Dr. Bingham explains that he was protected by the use of a Thomas' hip splint, the objection to his being up in that short time is withdrawn."

"It is admitted by some of Parker's followers that up to the present time operative treatment has not given as good results as conservative treatment. I hold that when a joint is known to contain pus this should be removed and the wound treated antiseptically; extreme devotion to non-operative methods is as far from correct measures of treatment as are the methods of those who operate early in every case. Had this plan been adopted in the case above referred to, the girl could not have made the perfect recovery which she has done. When due attention is given to the number of relapses that occur after operation, it will be seen that the gain in point of time saved is not so great as would appear. I would cite two cases operated on within the last fifteen months. One had the wound heal up without the appearance of any pus and was discharged from the hospital in good condition, but returned a short time ago having an abscess. The other, though having no sinus at the time of admission, was doing badly since the operation."

During the section a similar announcement was made regarding the Committee on Nominations as was made in the Medical Section. The section adjourned at twelve o'clock noon.

At 12.30 the Association assembled at Webb's Restaurant, 66 Yonge St., where they partook of a luncheon tendered them by the members of the profession residents of the City of Toronto.

At three o'clock p.m., the Association resumed in general session. The report of the Committee on Ethics was read by Dr. G. R. McDonagh, Toronto, as follows:—"Your Committee on Ethics beg leave to report as follows: Your Committee have been notified by the General Secretary that a large number of the members of this Association have been violating Article 3 of Section 1 of Article 2 of the Code of Ethics of this Association, by advertising their specialties in the public newspapers and journals. Your Committee do not feel like deciding this question, and respectfully refer the matter to the Association for their consideration and decision. We would respectfully ask the Association to define more clearly what they consider unprofessional advertising."

This was seconded by Dr. Moorhouse, London, who said that the Association must allow its members some liberty in the matter of advertising, or else the line must be drawn tightly for everyone. So far as he could see, there was nothing objectionable in a card in any paper containing only the address, name, and office hours. In case of a physician practising a specialty purely and simply, he should also be allowed a plain card mentioning his specialty, but it was not for a general practitioner to insert a card drawing attention to some specialty over and above his general work. The practitioners should also be allowed to advertise in medical journals, as these could not be termed public journals. Dr. Johnson, Toronto, wished to prevent a discussion and save the time of the Association. Dr. Mullin, of Hamilton, rose to a point of order and drew the attention of the chair to the fact that there was no motion before the Association. Dr. A. J. Johnson, of Toronto, moved that the rules of the Association with regard to the advertising of specialties be adhered to; seconded by Dr. Burnham, Toronto. Dr. Mullin, of Hamilton, moved an amendment, that the report be referred back to the Committee to make a recommendation respecting advertising by members of the Association; seconded by Dr. Oldright.

Dr. G. R. McDonagh, Chairman of the Committee, said that the Committee had information before them to the effect that over 130 members of the Association were violating this section of the Code of Ethics, and that he thought it was a perfectly natural thing for the Committee to seek instruction how to proceed from the Association. It was neither from cowardice nor from any want of backbone, as had been insinuated by some of the previous speakers, that his Committee had reported in the above terms. The question being put, the amendment was carried by 25 to 18.

The President then read a letter from Dr. J. Workman, Toronto, first president of the Association, congratulating the Association upon its twelfth annual meeting, and regretting his inability to be present. This letter was very heartily received by the Association, and Dr. Oldright, of Toronto, seconded by Dr. Bowlby, of Berlin, moved that the Secretary be requested to convey to Dr. Workman the congratulations of this Association on his recently having celebrated the eighty-seventh anniversary of his birthday.—Carried.

A discussion in Hay Fever was opened by Dr. Welford, of Woodstock. Dr. R. Shawe Tyrell, of Toronto, then spoke on "A Predisposing Cause." Dr. G. R. McDonagh, of Toronto, followed, and the discussion was closed by Dr. Welford.

The report of the Committee on Nominations was read by Dr. G. A. Peters, of Toronto. It was as follows:—"The Committee on Nominations beg to report as follows: President, Dr. Hillary, Aurora; 1st Vice-President, Dr. L. Brock, Guelph; 2nd Vice-President, Dr. Preston, Newboro'; 3rd Vice-President, Dr. McKay, M.P.P., Ingersoll; 4th Vice-President, Dr. A. R. Harvey, Orillia. General Secretary, Dr. D. J. Gibb Wishart, Toronto; Assistant Secretary, Dr. I. Olmstead, Hamilton; Treasurer, Dr. Barrick, Toronto.

It was unanimously agreed that this Committee recommend that in future the General Secretary do not hold office for more than five years.

Added to the Committee on Credentials—Dr. A. J. Johnson, Toronto; Dr. Henry, Orangeville. To the Committee on Public Health—Dr. B. Spencer, Toronto; D. H. J. Hamilton, Woodhill; Dr. A. T. Rice, Woodstock. To the Committee on Legislation—Dr. Britton, Toronto; Dr. McMahon, M.P.P., Dundas. To the Committee on Publication—Dr. Charles Sheard, Toronto; Dr. A. H. Wright, Toronto. To the Committee on By-Laws—Dr. J. Bascom, Uxbridge; Dr. Hodge, London; Dr. Price-Brown, Toronto. To the Committee on Ethics—Dr. Williams, Ingersoll; Dr. R. A. Reeve, Toronto. Next place of meeting, Toronto. All of which is respectfully submitted.

Dr. Peters, seconded by Dr. Powell, Toronto, moved the reception of this report.—Carried.

The Association then divided into sections.

MEDICAL SECTION.

Dr. J. E. Graham, of Toronto, was called to the chair at 4 30 p.m.

Dr. W. J. Wilson, Richmond Hill, read a paper on "Diphtheria," in the discussion of which Dr. Harrison, of Selkirk, said: "We owe a debt of gratitude to Dr. Wilson for bringing forward the facts he has given us. It shows that the poison of diphtheria may be carried by a person who has been exposed to the disease without having had it himself. With regard to disinfection—I think it is not yet settled what will surely kill the germ of diphtheria. Prudden says he subjected linen or cotton cloth in a bell-glass for twenty-four hours and found some of the bacteria still living, and could culture in suitable media colonies of them from the tissue. With regard to the cause of diphtheria, an interesting question is: Whether a case of diphtheria must be caused by a bacterium developed in a previous case? Sporadic cases, where there has been no known communication with a previous case, goes against this view; and though in the older sections of the country there might have been—as is said—cases of the disease, perhaps years before, in the same house, the germs of which have lain latent, in the newer parts of the country where the history of every house is known, as in my own neighbourhood, this cannot have been the case. Yet I have known many cases where the house was new, the place recently cleared, the occupants entirely isolated, and yet there have been marked attacks of diphtheria. If the idea of Prudden that a single bacterium may cause in one case abscess, in another erysipelas, and in a third diphtheria is correct, it might throw a light on this question."

Dr. C. A. Hodgetts, Toronto, spoke of a case occurring in the Nipissing District—where, some two years after diphtheria had been in the family of a settler, an old rug had been used to staunch the flowing of bloed in a cut foot. A diphtheria membrane developed and one or two deaths occurred in the family from laryngeal diphtheria.

Dr. Wilson replied briefly.

It was decided that Dr. C. K. Clarke's paper on "Lethargy," which should have been read at the morning session be now taken as read.

Dr. N. A. Powell, of Toronto, exhibited a case of Landry's paralysis, and read a paper thereon. The discussion was opened by Dr. Moyers, of Toronto, who said: "This case is very interesting from its comparison to multiple neuritis in which a purely motor form is quite possible, as is seen in those cases formerly described as anterior poliomyelitis of the adult, but which are now generally acknowledged to be an affection of the peripheral nerves, and it is only by the exhibition of cases such as this, and the study of its pathology that a distinction will finally be made between peripheral and spinal affections, since the careful examination of peripheral nerves has recently shown that several diseases of the spinal cord, in which no definite lesions are found post mortem, are really cases of peripheral neuritis."

Dr. McPhedran said that this case was a very typical one, the only symptom absent being disturbance of respiration ; this was peculiar in view of the fact that both speech and deglutition were involved. There was much difference of opinion as to what cases should be included in Landry's paralysis. In most of the late reported cases the nerves as well as the spinal cord were the seat of lesion, and it would seem wiser to include all such so long as they showed decidedly the symptoms of acute ascending paralysis. In a case reported by Klebs last year there was found thrombosis of the anterior central artery of the cord and of its branches to the anterior gray horns, the nerves being all healthy ; in some others there was disease of the anterior roots of the nerves or of the nerves themselves ; in many, micro-organisms being found in connection therewith. In the present case, in view of the absence of wasting and disturbance of sensation, and the normal reflexes with unchanged electrical reaction, there is little doubt that the spinal cord is the seat of the lesion. For the same reason the multipolar cells of the anterior coruna must have escaped ; the only part the affection of which would account for the symptoms would apparently be the terminal plexus in which the fibres from the brain terminate in the gray matter of the cord."

Dr. J. E. Graham related the history of two cases which had accurred in his practice during the last few months, both cases of myelitis which closely resembled that given by Dr. Powell. "In the first case the course of the disease was almost identical with two exceptions. 1st. The electrical reaction to the galvanic current was abnormal in quality, and electro-irritability to the Faradic current was lost in the most of the muscles affected. The temperature was raised for the first two or three weeks of the attack. The patient is now recovering. In the second case death occurred after four days' illness through involvement of the medulla. Post mortem examination revealed intense engorgement of the vessels of the anterior horn of the gray matter throughout the whole length of the cord, but much greater in the cervical and lumbar regions. Extravasation and inflammatory softening existed in the same situation. These changes produced a decidedly pink color which could be at once appreciated by the naked eye. From a study of these cases compared with those of Landry's paralysis, I am of the opinion that in the latter disease the lesion was in the same region, but of a somewhat different character."

The discussion was closed by Dr Powell.

Dr. C. H. Burnham, Toronto, read a paper entitled "A Case of Rheumatic Affection of the Eyes, Treated by Pilocarpine." Dr. A. C. Meyers, Toronto, followed with a paper on "Syringo Myelia." Dr. J. E. Graham in discussion of this paper said,—"I have noticed in the cases I have seen that the hands present an abnomally large appearance. This is principally owing to the atrophy of the muscles of the arm and fore arm. I would ask Dr. Meyers if he has observed this in his cases? In a case of central myelitis recently under my observation, there was an absence of the power to distinguish between heat and cold over parts where the tactile sensation was fairly good. The posterior portion of the cord was found to have been more affected than the anterior."

Dr. Meyers made no reply.

Dr. Jas. Thorburn, of Toronto, read a paper on "Some Points in Life Assurance." The discussion was opened by Dr. Mullin, of Hamilton, who thanked the writer for the paper, and spoke of the importance of some of his conclusions.

Dr. J. E. Graham, of Toronto, was of the opinion that in many of the cases of so-called functional albuminuria the precipitated was not really albumin. Reagents were often used which precipitated other compounds—peptone, for instance. The only reliable test which was always at hand was heat and nitric acid.

It being six o'clock the section adjourned.

SURGICAL SECTION.

Dr. Temple, of Toronto, took the chair in the absence of Dr. Holmes. Dr. Meek, of London, opened with a paper on "Ventral Hernia," and Dr. Dupuis, of Kingston, followed with one on "Operation for the Radical Cure of Hernia." The discussion on this was opened by Dr. H. O. Marcy, of Boston, who said :

"I owe my thanks to Dr. Dupuis for his valuable contribution upon one of the most interesting subjects that surgery ever presents for discussion. I am especially interested in his remarks upon the use of the caribou tendon suture, and with the permission of the section, I will confine myself to the subject of the animal suture, which is so very important in its application to the cure of hernia. As a student of Mr. Lister, I became deeply interested in the use of catgut as a ligature, and unsuspectingly used it for years as a trustworthy material for sutures. Sepses which may have resulted, I attributed to other causes. Engaged in a long series of bacteriological investigations, I took occasion to test specimens of catgut, the thicker varieties of which, although for a long time immersed in carbolic oil were shown to be septic, and bacterial cultures were made from them. A careful study of the material in its preparation for musical purposes showed that such general conditions were exceedingly probable, and at the same time explained the reason why catgut was oftentimes so troublesome in its application, because of its pulpy swelling, and when knotted was so untrustworthy on account of the ease with which it loosened. About fifteen years ago I sought for material better as a substitute for the catgut ligature and suture. Knowing that from time immemorial the Indians had sewed their skins with animal thread, I applied to this source for information. In the teepes of the Sioux of the far North-West, the squaws instructed me as to the sources and preparation of their suture material, which was generally taken from the broad fascia of the shoulders of the Buffalo, but sometimes from the long tendons of the leg of the moose and caribou. This was carefully sun-dried immediately upon removal from the animal, and kept dry until required for use.

"In 1882, Dr. Simmens, of Charleston, S. C., sent me beautiful specimens of tendons with long, fine parallel fibres, taken from the tail of the fox squirrel, but these were too short and fine for general use. I at once instituted a careful investigation of the caudal appendages of various animals, in a considerable measure with ludicrous and disappointing results. Reasoning from analogy that the kangaroo should furnish a distribution of tendons not unlike those found in the squirrel, I interested an Australian friend to investigate the subject and send me specimens. These proved far more satisfactory than the tendons of any other animal, and, indeed, furnish the ideal material for ligatures and sutures. The different varieties of animals called by the general name kangaroo, the opossum of the Southern States, the squirrel and the common rat, so far as known are the only animals which have this remarkable distribution of parallel tendons running to the extremity of the tail. They are each attached to a separate fasiculus of muscle, and in anatomical construction are independent. Twenty-five or thirty parallel tendons are found in each animal, and they vary in size and length proportionate to the animal's development. Many are sufficiently fine for the most delicate surgical use, while others are quite too large for any purpose, but are generally capable of subdivision, although rarely as satisfactory as the undivided tendon, which is uniformly even and round. They vary in length from eighteen to thirty inches. For years I had very great difficulty in obtaining a supply of tendons sufficient for my own use, but a few publications in the popular press in Australia and through the mercantile houses engaged in the collection of kangaroo skins, I have established the collecting of the tendons in a regular way. At first they were very expensive, I having paid sixty dollars a hundred in Australia for the tendons as collected by the hunters. They are now, however, furnished in a quantity ample for general use and can be supplied properly prepared at a cost of about the sum of ten dollars per hundred, not much in excess of the cost of catgut. The histological structure of the connective tissue sheath of the intestine from which catgut is made is interesting. The fibres are generally obliquely disposed, interlacing with each other so as to admit of easy extension and contraction in order to accommodate the bowel in its ever varying degree of contents. That this connective sheath may be separated from the other coats of the intestine it must be macerated for days, until it becomes a seething mass of putrifaction. This, in our own country, is saved by the butchers, and furnishes the sausage skin of trade. In Italy, where the best catgut for musical purposes is prepared, it is made from the intestine of the sheep. A cork armed with short knives is drawn through the sheath, subdividing it to produce the requisite size for musical purposes. The cement substance which binds together the connective tissue cells is by this method, necessarily softened, and it becomes everywhere invaded with bacterial infection which may escape destruction in the subsequent methods of preparation for surgical purposes. It is only with the greatest care in keeping catgut perfectly dry that it serves its purpose for musical uses. However, for surgical application it must ever be considered as a wet, softened material. When in this condition it is yielding, soft, and comparatively weak, and the comparison is not far-fetched between the spinning of silk into fine thread, weaving it into a delicate fabric, cutting it into diagonal strips, and twisting it in order to manufacture a cord, instead of keeping its fibres parallel. In the tendon, the strongest tissue in the animal economy, the fibres are constantly maintained parallel, and when properly preserved and prepared are aseptic and trustworthy. The knot is firm and unyielding as in silk, aseptically applied it is unirritating and is slowly absorbed to be replaced by new connective tissue cells. Silk, wormgut, is unchanged in the tissue and as wire remains as a foreign body, or must be removed. Silk is encapsuled and not absorbed, and even when aseptically applied frequently becomes an irritant, and when buried in the tissue is often eliminated months after as a foreign body. As the profession come to understand the advantages from the use, in the daily widening field, of buried sutures, the valve of tendon for this purpose will be appreciated, and I hazard a little in predicting that the day is not far distant when the surgeon will feel the necessity of providing himself with a supply of trustworthy suture material.

Dr. Marcy exhibited to the section specimens in considerable variety of the tendons of the kangaroo.

Dr. Meek replied briefly. Dr. Dupuis also pressed the use of the kangaroo tendon.

Dr. J. F. W. Ross, of Toronto, read a paper entitled "Hysterectomy with and without a Pedicle, A Critical Review from Clinical Histories." Dr. Lapthorne Smith, Montreal, opened the discussion by referring to the mistake frequently made in ascribing the formation of adhesions to electricity. Dr. Smith cited a case which he considered proved that electricity was not the cause of adhesions. One drawback in the operation without a pedicle was that adhesions were likely to form, and adhesion of the bowels was a very serious matter.

Dr. Atherton, of Toronto, said: "I think we ought to vary our treatment to a certain extent. When the tumor is not overly large and has not probably on that account formed a good pedicle, in such cases total extirpation may be necessary. In large tumor with well formed pedicle the old method of operation by extra-peritoneal method is still the best. I think electricity is of value, but I am not a complete convert to the method. We must not discard any form of treatment too summarily."

Dr. Temple, of Toronto, considered the subject of hysterectomy of great importance. "There is a danger," said he, "of hysterectomy becoming fashionable, though probably it will not be so popular in the future. A considerable number of cases of fibroid of the uterus can be treated successfully short of hysterectomy. I have seen four cases of mania after hysterectomy. We should consider each case carefully and the removal of the appendages should first be tried. Cases very hæmorrhagic might call for hysterectomy. The intra-peritoneal pedicle is preferable to the extra-peritoneal."

Dr. Ross, in reply, said: "I do not think that one or two cases will prove the statement made concerning the non-injurious effects of electricity. I believe that certain cases of fibroids are best left absolutely alone—though perhaps a little ergot may be administered."

Papers on "Post Nasal Adenoids" by Dr. J. H. Thorburn, Toronto, and on "Ocular Paralyses from Basal Lesions, with report of Cases," by Dr. D. J. Gibb Wishart, Toronto, were, on motion, taken as read.

The section then adjourned.

Owing to the hall of the Education Department being required for other purposes the evening session was held in the large hall of the School of Pharmacy, Gerrard St. The session opened at 8.15. The minutes of the sections and of the afternoon general session were read and confirmed.

As the election of officers was now in order, it was moved by Dr. McKinnon, of Guelph, seconded by Dr. McFarlane, Toronto, that the report of the Committee on Nominations be adopted, and that the gentlemen therein named be the officers and members of committees for the ensuing year.

Dr. Wishart, seconded by Dr. A. J. Johnson, moved that the President elect be authorized to appoint four delegates to the meeting of the Canada Medical Association, to be held in Ottawa in September next. Carried.

Dr. Oldright, Toronto, exhibited a patient who had suffered from fracture of the body of the scapula, and made some remarks thereon. Dr. Harrison, of Selkirk, had seen a similar case many years ago where the injury had resulted from the striking of the back upon the dashboard of a carriage when being thrown out.

The Secretary presented his annual report, and moved its adoption, seconded by Dr. McFarlane.

Dr. Mitchell, of Enniskillen, opened the discussion in Therapeutics, taking up the therapeutics of constipation. He was followed by Dr. McKinnion, of Guelph.

Dr. Acheson, of Toronto, read a paper dealing with "New Remedies." Dr. Mullin, of Hamilton, was asked to speak upon "Old Remedies" but did not respond. Dr. L Smith, of Montreal, made a few remarks, and the discussion was closed.

The report of the Committee on Legislation was read by Dr. Harrison of Selkirk, who moved its adoption, seconded by Dr. J. F. W. Ross, Toronto. The report was as follows:

"Your Committee find that several Bills amending the Act, or affecting the profession, were brought before the House at its last session. One to repeal the clauses of the Medical Act giving the Council the power to tax the profession for its support; giving the Registrar the power to remove the names of defaulters from the Register a year after having been notified of such default; and to amend other clauses of said Act, so as to nearly double the territorial representatives, and to make the term of their office three instead of five years.

"Another Bill to amend Section 48 of the Medical Act, so that the application of plasters to 'draw out cancers' or to heal sores shall not be practising medicine or surgery in the meaning of the Act. And a third Bill to make it more difficult or impossible for the medical schools to obtain the unclaimed bodies of those dying in charitable institutions.

"These Bills so far have failed to become law, and your Committee cannot help feeling that they were unwise and uncalled for. Your Committee feel that it is unwise to repeal or amend the Medical Act until its working has been fairly tried. They feel it is not in the interest of the profession to appeal too often to the Legislature; and that so long as we are represented in the Council by members of our own choice, and whom we can remove when they cease to represent our views, it would be fitter to bring pressure to bear on them, than to call in the aid of the Legislature. That whatever may be the faults and defects of the Medical Act, it has conferred a great boon upon the profession. We see the profession in the States looking upon our position with envy, and in some of them attempts are being made, in a very tame manner, to copy our system. There is scarcely a respectable medical man in the States who would not gladly accept our Act, if its expenses to him were double those that we pay.

"And your Committee cannot help feeling that our too often applying to the Legislature is lowering to the profession and endangering to the Act, but feel, at the same time, that the Council should be in touch with the profession, and should, as far as may be, reflect its opinions. And we feel that it is unfortunate when any of the general members of the profession have an opportunity to think they have a grievance against the Council, and would therefore suggest that before asking the Legislature for any important change in the Act, or making any important change in the curriculum, or their procedure toward the general profession, the Council should ascertain the opinions of the profession with regard to such changes. This might be done through the local societies—where such exist—by means of circulars issued by their secretary, or by each territorial representative ascertaining the views of his constituents.

"We make these suggestions with a great deal of diffidence, and mainly in order to bring them before the Association. And we hope they will be fully discussed, as we cannot conceal from ourselves that the question is a very important one, and that perhaps upon our action the future welfare of the profession may largely depend.

"We feel that to relieve those who apply caustics to cancers from the penalties of the Act, would be in the highest degree unwise. It is notorious, that in numberless instances, great and unnecessary suffering is daily caused by the application of these caustics to harmless growths, and that in numerous instances death is the result of the application of escharotics by persons ignorant of the first principles of medicine and surgery. The other Bill if passed, would have greatly reduced the already scanty supply of anatomical material at our medical schools, and would have a tendency to drive our students to countries where the people were more enlightened and subjects easier to be obtained. Dissection cannot harm the subject. It can only be the effect upon living friends; who then so proper for a subject as he who leaves no friends? We think the public mind needs education with regard to this subject, and that the press and the profession might and should do a great deal toward it. The ordinary layman thinks the medical mind differently constituted from ordinary humanity, and that the anatomist dissects a subject for mere amusement. That, as the old French pathologist has said, to answer the question in the Rubric, 'What is the chief end of man?' by 'To furnish pathological specimens.' So the anatomist thinks his chief end is to furnish work for his scalpel. All of which is respectfully submitted."

The report was adopted.

The report of the Committee on By-laws was not presented, on account of the absence of the chairman, Dr. W. H. Henderson, Kingston.

The Committee on Publication not having allocated the papers, could not report.

Dr. E. J. Barrick read the report of the treasurer and presented the accounts and so on for the year.

Balance from 1890-91	$249 92
Fees for 11th Annual Meeting....	348 00
Interest........................	8 00
Total...........................	641 92
Expenditure.....................	453 76
leaving a balance of...............	188 16

The report of the Committee on Audit was appended; Dr. Strathy having audited the accounts and vouchers and found them correct.

Dr. Barrick moved for the adoption of these reports. This was seconded by Dr. McPhedran Carried.

The report of the Committee on Public Health was read by the Chairman, Dr. P. H. Bryce, Toronto, who moved its adoption. This was seconded by Dr. W. A. Ross, Barrie. The report was as follows:

"To the President and Members of the Ontario Medical Association. Gentlemen,—Your Committee would report that since the last meeting of the Association the Province has been fortunate in not being visited with any outbreak of small-pox, and that contagious diseases other than diphtheria have not caused any serious mortality in Ontario.

Regarding the latter, your committee would express its regret that in spite of its efforts made by physicians and boards of health generally, many outbreaks have been reported from every part of the Province, and that some of these have been of an extended and fatal character. While the cause of the disease is generally understood, it is not so well known to the public or appreciated by the profession that the disease under ordinary conditions is of an intensely contagious and infectious character. This being the case your Committee would urge upon the members of the Association, and through them the public the necessity of making known to the proper authorities by every means in their power the locations where individual cases exist, so that the authorities may not only warn the public to shun contagion where exposure is unnecessary, but in cases where local isolation, through poverty or other cause is impossible, the local health authorities may remove such to houses or hospitals where isolation may be properly carried out.

Especially would your committee direct attention to the danger of the spread of this fatal and prevalent disease through the medium of schools, public and private, Sunday and charity schools. Much attention has been given to sanitary matters by municipalities during the past year in the matter of public water supplies and systems of sewage. Everywhere the necessity of a pure water supply is making itself apparent in outbursts of typhoid fever, and the importance of controlling both public and private supplies is being daily understood by the public.

That an immense impetus has been given to public health work by the establishment of permanent boards of health is fully appreciated by your committee ; but it also very fully recognized that by the great advances made in physical and medical science, but notably in biology and chemistry, has the present improved status of public health, legislation and executive control of disease being made possible. All of which is respectfully submitted."

The report was adopted.

Moved by Dr. Mullin, seconded by Dr. Wright, that the past presidents of the Association form an Advisory Committee for the coming year. Carried.

Moved by Dr. H. A. Powell, Toronto, seconded by Dr. McKinnon, Guelph, that this Association in recognition of the usefulness to the profession in this Province of the collection of books and other medical literature already made by the Ontario Literary Association, hereby made a grant of one hundred dollars toward the purchasing fund of the Literary Association. Dr. Powell spoke at some length of the value of this library to the profession. The resolution was adopted.

Dr. Oldright, of Toronto, seconded by Dr. Mullin, of Hamilton, moved that the thanks of the Ontario Medical Association be hereby tendered to the Honorable Minister of Education for thus extending to the Association the use of the hall of the Education Department, and to the authorities of the School of Pharmacy for the use of the lecture hall for the purposes of the evening meeting. Motion carried.

Dr. A. Davidson, seconded by Dr. W. H. B. Aikins, moved that it be resolvhd that the Ontario Medical Association paesent a request to the Ontario Medical Council that the transactions of the Council be presented in fuller form than hitherto to the medical profession throughout Ontario. Resolution carried.

Dr. Acheson, seconded by Dr. Lundy, Preston, moved that the usual honorarium be paid to the secretaries. Carried.

Moved by Dr. P. H. Bryce, seconded by Dr. Atherton that the President be requested to appoint a committee to act in connection with the Registrar General's Department with a view to making such suggestions as would serve to aid in improving the Registrar General's returns.

The General Secretary drew the attention of the Association to the wisdom of issuing a revised list of members, with their addresses, as over one hundred new members had been added to the Association since the last report was printed. Dr. Wishart, in conclusion, moved, seconded by Dr. Mullin, that the General Secretary be authorized to issue a revised list of membership of the Ontario Medical Association in pamphlet form. Dr. N. A. Powell thought that if such a list were to be published it would be wise to have a table also, showing tha year in which the members had attended the meetings of the Association, as it was of great assistance to the Committee on Nomination.

Dr. Ross, Toronto, gave notice of a motion to the effect that at the next annual meeting, action be taken on a report by a committee appointed at this meeting to take into consideration the advisability of publishing the transactions of the Ontario Medical Association, and that any necessary changes in the Constitution for the accomplishment of this object be made without further notice of motion.

Moved by Dr. Ross, seconded by Dr. Wishart, that the committee be the Committee on Publication together with the present President, Dr. Reeve, Secretary, Dr. Wishart, Treasurer, Dr. Barrick, Chairman of the Committee on Papers, Dr. McPhedran, Past President, Dr. J. A. Temple, Dr. N. A. Powell, Curator of the Medical Library and the mover.

Dr. Ross thought that in view of this motion there would be no necessity for publishing such a list as Dr. Wishart mentioned. Dr. Mullin, of Hamilton, seconded Dr. Wishart's motion. The Secretary stated that such a list would cost very little and would be of practical use being greatly needed at the present time. Dr. Wishart's motion was carried. Dr. Ross' motion was carried.

Dr. McPhedran gave notice of motion to repeal by-law, Article III, section E.

Dr. Ross moved that the paper of Dr. Vanderveer, of Albany, on "Three Cases of Malformation of Sexual Organs," be taken as read. Carried.

The President having vacated the chair it was taken by Dr. Mullin, of Hamilton and the following resolution was moved by Dr Williams, of Ingersoll, "That the thanks of this Association are due, and are hereby tendered to the retiring President, Dr. R. A. Reeve, for the able manner in which he has conducted and expedited the business of the Association for the year." This was seconded by Dr. Mitchell, of Enniskillen. Carried.

Dr. Reeve expressed his thanks to the Association and moved, seconded by Dr. McPhedran, that the Minister of Customs be respectfully requested to change the interpretation or wording of the Act, so that any medical or surgical apparatus or appliance be admitted at the same rate as surgical instruments now were. Dr. N. A. Powell said that this rating would hardly be made unless trusses, which were now subject to a special rating, be omitted from the scope of the Resolution. The Resolution was adopted.

Dr. Mitchell, Enniskillen, seconded by Dr. McKinnon, Guelph, moved a resolution to the effect that the thanks of the visiting members were due, and were hereby tendered to the profession of the City of Toronto for their hospitality. Carried.

Dr. Reeve resumed the Chair, and regretted that owing to the absence of Dr. Hillary he could not introduce him to the Association, and declared the Association adjourned.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

ANNUAL MEETING OF THE MEDICAL COUNCIL.

Tuesday, 14th June, 1892, 2 p. m.

The chair was taken by Dr. J. A. Williams; the meeting called to order, and the roll of membership called by the Registrar, Dr. Pyne.

The president delivered his address as follows:

Gentlemen of the Council.—It is my pleasing duty to welcome you back to your labors for the ensuing year; and, with you, deeply regretting that one gentleman, a representative of the homœopathic branch of the profession, if I may so say, who was with us at our last meeting, will not be with us this year. His time of trouble and strife in the medical profession has been brought to a close. With his more intimate friends we join our sorrows that an illustrious career of usefulness should have so speedily ended. But while we must deplore the loss which we, the Council and the medical profession of Ontario have sustained, our members have not fallen off: we have now to welcome back to our Council, our old esteemed friend, Dr. Vernon, of Hamilton.

The year that is now drawing to its close has not been without considerable anxiety to the medical profession. The legislation which was secured in 1891, and which was believed to be in the interests of the public and the profession has been very largely misunderstood. Efforts have been made, not only to have that legislation repealed, but to have other changes made; some that would be of very great detriment to the usefulness of this Council, if not indeed entirely destroy it.

It is to be regretted that there should be any members of the profession who would think for a moment that the College of Physicians and Surgeons of Ontario, a representive body of the profession, should have any interest to serve other than that of the public and the profession; but so long as we have representative institutions as we have in this country we must expect to come under the same influence as other representative bodies. If, for instance, we select in a community twelve of the best men we can find, and elect them as Municipal Councillors,—before the first year is up we find them strongly abused; and if they unfortunately continue in power three or four years they need not be surprised if they learn they are murderers or worse. Members of this Council must not hope to escape a like fate.

We find too, I think, that one reason why the Council is misunderstood is because of a want of intercommunication between the Council and the profession. As you are aware, it is not possible to get any considerable number of the medical men together for the purpose of their representatives addressing them on the questions likely to come before the Council. The public press can scarcely be expected to deal with these subjects to any great extent, because they cater to the entire public and can not be expected to give a great deal of space to questions interesting some two thousand or more medical men. We would be inclined to think that the medical press would be placed in a somewhat different position. We would think that their highest interests would be to afford such information as would be beneficial to the members of the profession; but while we as outsiders think so, the editors apparently do not look at that question in the sense that we do, for we find that the merest epitome of the Council's proceedings is left without that light on the proceedings of the Council which I think the profession are anxious to have and which I think they ought to receive.

Because of this want of intercommunication between the profession and the Council a misconception exists with the public as well as with the members of the profession as to the utility of the Council and of this College. It is not uncommon to hear from the public that it is a huge monopoly, got up for the benefit of the profession, and to the detriment of the public; and from the profession we not frequently hear that free trade in medicine is a desideratum. I need not say to you that this is a great mistake, not only so far as the public is concerned, but also the profession, for the public are the beneficiaries in the first place, and the medical men in a secondary sense receive more than compensation for all that they have been called upon to contribute towards the funds of the College of Physicians and Surgeons.

In order that we may understand to what extent the public and profession are interested in this matter it may be wise just hastily to review some steps that have been taken that have led to this present status, and to mention some of the difficulties that we have had to overcome. To understand this fully we must look back to the status that the profession occupied before 1865, which is the date of the first Act with which the Council was connected, though not under this name. Previous to that time we practically had free trade in medicine though not in the letter of the law. We had three medical schools in Ontario. We had three licensing boards, including eclectics and homœopaths. Each one of these three had its own standard; each one vied with the other to see who could turn out the greatest number of students. Colleges in Quebec sent up not a few to the province, and the American schools of all shades, eclectics, homœopaths and regulars, as well as some European colleges, flooded upon us their superfluous graduates. The profession was thus more than crowded in the Province of Ontario with men of very varied shades of qualification. Each school established its own standard and each carried out its own curriculum, and the result was that we had a very varied class of physicians then practicing in the country.

When the 1865 Act was enacted it immediately made a wonderful stirring up among the men who were practising in the country; those with foreign degrees were found running to the schools; those who couldn't successfully get on in the schools went to the licensing board, and, in very many cases secured licenses, and went on with their practice. Those not so fortunate were compelled to enter into some of the schools to complete their medical education; the result of this was that the number of practitioners in the country was very materially decreased. We find that the Act was a compromise measure; it was the schools who were seeking for legislation and not the profession at large. The school men were jealous of each other; each one believing that the other was a greater culprit in the matter of turning out imperfectly qualified students than themselves, and each was anxious that legislation should be secured, that some check might be had upon the other schools.

First, we notice that under this Act the Council was established, different in name, but practically as it is to-day. In order that each school might be willing to enter into this arrangement, it became necessary that they should be allowed a representative on that Council. Then that Council was given power to decide as to the standard of matriculation, and also the standard of the medical curriculum, though they were not allowed at that time to conduct examinations. They simply fixed the standard; each individual school went on and conducted its own examination after its own fashion. I may just call your attention to the fact right here that the British Medical Act has only reached this stage up to the present. The Legislature in Great Britain refused to take the right away of granting degrees from the schools. I find also in this compromise Act the establishment of a system of registration, on condition that they had representation in the college; so we find in the 4th clause that each school and university should be represented in the college, a system that has not been changed.

In looking over that 1865 Act, we find there were some very striking features. One of the questions that arose in the 1891 Act had for its object the keeping of a correct register, and it was provided that if a letter is sent to an individual, and no answer is received within six months, the assumption is that he is either dead, or has ceased to practice, or has left the country, or did not wish to practice, and his name was dropped from the register. Under the 1865 Act he could not be restored to his position on the register without the sanction of the Medical Council. Under the 1891 Act he could be restored as of right whenever he wished, upon paying up the fees and announcing his intention of practising. Under clause 36 of the 1865 Act a provision was made which prevented the rights of the homeopaths and eclectics being infringed upon in any direction; they were secured their rights under the Statute at that time; no change was made in that direction that would affect them in any way whatever.

After this Act had been in operation from 1865 to 1868, another attempt was made to secure legislation: and now I think I may say that the attempt was made at the instance of the Medical Council, and not of the school men; it was felt that the plan of allowing each school to examine its own students, even though the college fixed the standard, did not prevent a great many imperfectly qualified men going into the profession. There was the further desire that the licensing boards of the eclectic and homœopathic branches should be brought under a general provision, and that the same standard should be adopted for all. Again another compromise was made. The desire was now that there should be one examining body, and in order to get all these different persons to consent to the one examining body, a further provision was granted to them, not only that they should have the right to representation on the Council, but that they should have one member on the Examining Board. That is why you find, continued in the Acts up to the present, that the colleges have a representative in the Council, and that they have the right to an examiner on the Examining Board.

In this 1868 Act power was obtained to hold matriculation examinations; it was also obtained to hold the Council examinations, and immediately after that they commenced conducting their examinations. They had no provision in the 1868

Act to hold chattel property or real estate, and they were compelled to hire a hall, here and there, wherever they could, for the purpose of conducting the examinations. The hall in Toronto University was hired for a time, I believe, and some others, but I am not prepared to say which; perhaps some of the older members can speak as to that. But they didn't prove satisfactory; when you recollect that the students from three different medical schools in Ontario, as well as students from Quebec, and other places all had to club together in one hall; it required a larger hall than was provided at that time by any university. Indeed, there was so much discontent at one time occasioned by this that we heard it said there was preparation made to use some disagreeable materials upon the Board of Examiners. But the fault was not theirs; the fault was in the insufficient accommodation which was provided at that time.

This continued from 1868 to 1874. In 1874 we have the Council approaching the Legislature again. They showed the Act as it existed was scarcely practicable in that we were not allowed to own a hall in which we could have proper provision for examining students, or in which we could have better appliances, and they sought to get increased legislation in this direction.

But when they got the promise of this they then pointed out to the Legislature that they hadn't sufficient funds to conduct the examinations in a satisfactory manner; and they asked that they should have a Government grant, because this was a public work in the public interest, and that therefore a public grant should be given to them. The reply they got from the Government was: "We admit that the public are benefiting very greatly, and that what you say is largely true; but the members of the profession are themselves receiving a benefit, and before we ask the public for a grant the members themselves should contribute something towards these funds."

Upon this basis a clause was introduced giving the Council power to impose a fee of not less than $1.00 nor more than $2.00 per year. For the first year the $1.00 was made compulsory, but for each subsequent year it was within the power of the Council to say what the fee should be, but not less that $1.00 nor more than $2.00 in any case.

Now, after 1874, if we look at the financial statement we will find that a very great change has taken place. Previous to that we find in the financial statements in the six years from 1868 to 1874 that the receipts were not quite equal to the annual expenditure, that the Treasurer was receiving no compensation for his services, and it is said that the members of the Council themselves worked for almost nothing at all,—I have heard it said in fact that at one time they received nothing; as a matter of fact the Council was not able to pay for what it honestly and legitimately should pay.

After 1874 there was an influx of funds, because I presume of these clauses that made each member of the profession liable for one dollar at least in each year. From that forward we find that the examinations were more satisfactory,—that the Council had now a large amount of funds at their command, and were enabled to make provision so that they could have a hall of their own, and have the necessary appliances for conducting more thorough and more complete examinations In, I think, the year 1878, or about there, they purchased a building on the corner where we now stand, and this for a time was utilized for college purposes.

The next Act was the Act of 1887. The Act of 1887 has just two or three prominent features; the first leading feature is that there is a change made in the representation in the Council; this change was to allow a representative to come from Regiopolis College and Ottawa College; this came about not at the instance of the Council, but rather in spite of the Council. The Council believed that the colleges already had all the representation they should have in the Council, but the Legislature thought otherwise, and introduced these additional names as representatives. I mention this particularly to show that when you go to the Legislature to secure any measure for the medical profession, you are not exactly certain what you are going to bring away. You may get what you want, but you may also come away with additions that you didn't desire. It is therefore of the utmost importance that when you approach the Legislature you should do so as a united profession, to get what you consider ought to be obtained, that there should be the most perfect harmony on the points in question.

Another change was, a limitation was put to the period in which a medical man might be prosecuted for malpractice. Previous to that time, I believe, the only limit was something like six years; and in some cases a medical man had been brought up and tried years after the witnesses were all dead or gone. This clause was secured for the purpose of freeing the profession from an injustice of that kind.

The third feature of that Act was to give the profession a right to say who should continue to remain members of it; hitherto you couldn't strike a man from the lists unless for some very serious crime. This Act of 1887 allowed the Council or a committee of themselves, to try members of their own profession as to what was unprofessional conduct, to hear the evidence in the case, both for and against, and if in their judgment they decided that the person was unworthy to practice medicine they had a right to order his name to be erased from the register. The effect of this 1887 Act in short, was to give the medical profession entire control of themselves; it made the profession self-governing; they now had a right to say who should practice medicine, and what the standard of matriculation should be; they had the right to hold the requisite property necessary for the proper conducting of examinations; they had the right to collect a small annual fee, and now they have the further right to say to what extent, conduct that was unprofessional should be allowed, and at what stage the members of the profession may declare that these should belong to the profession no longer.

The next that we come to was the Act of 1891. This is one that has given rise to some considerable misunderstanding among the members of the profession. If we look at the Act itself we find it has a number of features. Previous to this time you will remember that any person who was a matriculant in Arts in any university in Her Majesty's dominions had a right to be admitted as a matriculant in Medicine. It was felt by some, that this was opening the door too wide; that in some parts of Her Majesty's dominions there might be universities whose matriculation standard might be hardly high enough; the Legislature concurred in the view, with certain restrictions; and the Council were given power to say just what their standard was to be, anywhere up to a degree in Arts. It was finally arranged that the standard should be the junior leaving examination which is exacted in the Arts Department in our Province, with the science option, for the purposes of medicine. Now there has been a feeling abroad that the Council have not been willing to accept Arts matriculation in Her Majesty's dominions all over; it is felt by some that it is intended by the Council to set up a standard which might shut out some honest, industrious, young men, and leave the profession open to those only who were born with a silver spoon in their mouths. I need scarcely say to you, gentlemen, that the College of Physicians and Surgeons of Ontario are not likely to take any such step as this. Under the heading of Appeals, we find a change is made. After the 1887 Act an appeal might be made to a High Court Judge; a change was made, so that an appeal might be had to a division of the High Court. There are also a couple of other little changes with reference to the taking of evidence, and to the assessment of costs.

Now we come to the more important particular, section 9, sub section 22. This was placed upon the Act for the purpose of enabling the Registrar to keep a correct register of all medical practitioners in the Province. If you look over that register you will find that there are some where about 2,600 names on it, and the most careful examination that we have been able to make, shows that we have only 2,148 practitioners in the Province; so you will see that there is a great defect in the register. That comes about because we have not the right to drop off names; we do not become aware of those who may have left the country, or may have ceased practising from one cause or another; and this clause was put in so that after a letter was sent to a man and he does not answer within six months, we may have the right to assume that he has either left the country, or has gone out of practice, and his name can be dropped from the register. It was not in the 1874 Act, but we find this provision in the Act of 1891; and it was put there, not as a means of punishing the members of the medical profession, but rather with a view to perfecting the register, so that we might know who they were who had a right to practice, and who had not; and it also had the object of establishing a closer communication between the profession and the Council.

Then we turn to the section that has given rise to the greatest amount of difficulty, this is section 41 A. This section has several striking features. The first is that a medical man is required to take out an annual certificate; he is required to pay his annual dues before the 31st December, in each year; according to the Statute of 1874, that fee was due on the 1st January, so he is given twelve months in which to pay the sum of not less than $1, nor more than $2, in the discretion of the Council. But even then, should he not pay, he is to receive two months' notice. At the end of that time, if he dosen't think it worth his while to remit the amount, the assumption is that he does not wish to practice any longer, and his name is struck from the register; the matter was thus left optional with himself, either to cease to practice and not pay, or to practice and pay; but he is prevented from taking advantage of the payments made by other members, and to profit at their expense.

Now the idea has been promulgated by some, that when a member is dropped from the list, he can't get back again without some considerable difficulty; that is not correct; under clause 6 of the Act, provision is made that whenever he wishes to re-assume his position on the register, all he requires to do it to pay up his fees, and be reinstated on the register; he does not require to come before the Council, and has not to ask any favor of any person whatever; simply that he should pay up his fees to the profession, that he may be restored to his proper position.

There have been some gross charges made against the Council because of this provision. It has been said that the Council imposed this fee. Gentlemen, you all know the Council did not impose this fee; it was imposed by the statute in 1874; and every member of the profession who entered it since that date either knew, or ought to have known, that that was one of the obligations that he assumed when he entered this profession; he knew, or he ought to have known, that this dollar was due and payable, and he should have known that it was the duty of this Council to have collected this amount from every man alike. There have been a goodly number who have annually, or at least periodically, paid up their entire indebtedness to their profession; but there have been some who have taken all the advantages of the profession they can secure, and have not contributed their fair share towards the cost. The Council did not make a collection fully as they should have done from each member of the profession; and what must be our excuse for this? Well, gentlemen, the only excuse we can offer is this, that when we proceeded to collect the annual amounts, we found that the costs of collection very nearly ate up the whole sum that we tried to get. Let me read you some figures. In the medical year 1887-8, $434 expended, collected $630 in fees; in 1888-9, $319 expended, collected $376. Now, this is the excuse, and the only excuse the Council can offer why they did not compel every member of the profession to contribute his fair and honest share, as he should have done, in the interests of the profession, to the funds of the Council.

Now, the Council, finding this serious difficulty in their way, knowing that every member of the profession was alike responsible, and knowing that the Council had the right to calculate upon this income as part of their revenue with which to meet expenses, came to the conclusion that it was high time some steps should be taken by which the payments should be equalized, and that every man should bear his fair and equitable share of the expenses of the Council. To receive a dollar from one party and to use that money in the interests of the profession, to spend that money in the interests of the profession, was simply laying an unequal burden on the shoulders of our medical men. This clause was inserted in order that it might be impossible for any to enjoy the advantages of the profession and at the same time take advantage of these who pay. In connection with this same provision the Act was made retro-active. This is said to be an unprecedented thing. What does this retro-active feature mean? It simply means this,—that men who had been taking advantage of the profession for the last seventeen years shall now be compelled to come down and bear their fair share as well as others. It meant that members of the profession who have been taking advantage of their fellows shall not be allowed to plead the Statute of Limitations, but they shall come down and bear their fair share like the other members are expected to do.

Another feature that has been urged very strongly is that the taking out of the annual certificate is derogatory to the profession—that it is humiliating—that it is placing you on a par with the hack man who requires to take out an annual license. The profession are supposed to be so very sensitive in their make up that they couldn't be asked to contribute for what they are going to receive until a year after it was due; that these gentlemen who were so pachydermatous in their make up have now become so sensitive that they can now stand this provision, Gentlemen, we are no exception. The druggists have made a provision by which every man who keeps a drug store must pay his $4 per annum for his license. He is allowed till the 1st day of May to pay it and if it is not then paid he loses his license. And there is the legal profession as well; we have never found that members of the legal profession were backward in crying out for what they considered their rights, and we have never found them backward in standing up for their liberty. The annual fees of the legal profession amount to about $18 per year; and they are allowed to a certain day to pay it. This is paid in different accounts, but it aggregates about what I have said. If after that certain time the amount is not paid the barrister loses his gown.

Now, gentlemen, surely members of the medical profession are not so much more sensitive than those that I have mentioned, that they should object to being asked to contribute their fair share after being given twelve months in which to pay it, and then being given two months' notice further.

The annual certificate is objected to because they say, we had the right under our diplomas to practice for all time without a fee. Well, unfortunately, diplomas do not undertake to cover everything. Previous to 1865 we had each of the colleges granting diplomas. These diplomas didn't entitle to practice medicine; but they were received by the Government as proof that the person had the ability to practice medicine, and upon the strength of that the Government issued a license; and later on the different licensing bodies granted licenses on proof of the same nature. Under the old diplomas there was no right granted to practice medicine at all. Some have said that the diploma of the College of Physicians and Surgeons was a diploma for all time, and that it contains nothing about an annual fee; but if you will look at the exact wording of that diploma it simply sets forth that a certain gentleman has completed the curriculum, that he has passed the requisite examination, and that he has become a member of the College of Physicians and Surgeons of Ontario, and is thereby entitled to practice medicine, surgery and midwifery. This is simply an acknowledgement that he is a member of the College; if a member he must be registered; and if registered he has a right to practice medicine and midwifery. This of course makes him subject to the provisions of the Act respecting registration; and under that same Act he is required to pay an annual fee of not less than one, nor more than two dollars.

Dr. Ruttan.—Yes, and submit to the laws of the Council.

Dr. Williams.—Yes. Another very serious objection has been taken to the Council for the erection of this building: it has been set forth very largely that the profession at large has been made to pay for a great mass of brick and mortar in Toronto, in order that the city medical men should have a grand home at the expense of the medical profession. Now, if we look carefully into the matter, we will find that this is not true; we will find that the city practitioner receives no advantage from this building any more than the country practitioner. It has been said that the Council have established here a library for the exclusive benefit of the medical men of the City of Toronto. Let me tell you that the Council have not expended one solitary dollar on the library. While there is a library, the owners of it pay a rental for the space they occupy, just as any other person might be required to pay. It has been said that the Toronto Medical Association have rather a fine time,—that they were paying at one time $100 a year, but that they now use our hall in the College of Physicians and Surgeons. The facts are these, the Library Association have sub-let to the Toronto Medical Association the right to meet in their library once a week, and hold their meetings; the Council has no responsibility in any sense whatever, neither do they contribute, neither do the Toronto medical men derive one single cent of benefit from this building, outside of what a country practitioner may derive.

The objection is taken to the building that it is too expensive; it has been said that we should have confined ourselves to an annual expenditure of not more than $5,000; in fact, it was sought to have this done. Now, when you take into consideration the examinations that are held here, and that they must be held, and the vast number of students coming from four medical schools, and from Quebec and from outside places, you will understand that no small building would answer the purpose. It was soon found that we were obliged to have larger examination halls; as we were obliged to conduct examinations, we were obliged to have a great many appliances that were not necessary years ago. If you will go through our store rooms you will find we have an immense number of microscopes, mannikins and skeletons; and we have a great many articles in materia medica.

Now, it is said we could rent a hall that would answer every purpose. Can we rent a hall that would be sufficiently large to hold examinations in and would also serve for the proper care of our appliances? We tried that before we had power to own property, and it was emphatically not a success. Now, we rent certain portions of this building, portions that we do not need, and the result is that the total cost is very much lower than it otherwise would be. Now, we said at the Medical Association some days ago, that we had a net income from this building of upwards of $500. On looking into this matter more critically, I find I was too high; the treasurer had omitted to take into consideration some expenses that should have been included, however, I will now give you some of the figures, which I think are correct as at present. We have a mortgage on the building for $60,000, bearing interest at 5 %; that costs us $3,000 a year for interest. Insurance is about $80, taxes $652, man in charge of elevator $260, water rates $400, fuel $500, gas $150. Making a total expenditure on the building of $5,142. Now we will count the receipts; the last year before we came to occupy this building, we paid for the rents of halls which we required to use for our purposes $750, and I think we have a right to place to our credit first of all that sum; for while it does not come in we have prevented it going out by owning this building. Then we have rents amounting to $4,090; or a total of $4,840. Deducting that from $5,142 it leaves $302 required to be met annually from other sources. This represents all the burden that this building is at present. We have still a number of rooms that may be rented; when they are rented at the same rate that we are getting now for the other rooms, these will bring in about $3,000 in addition to what we are already receiving. The City buildings are being put up in the immediate vicinity; and offices in this locality will be very easily rented, in fact will be at a premium, and I think we may safely count on this in a short time. The revenue will then be somewhere in the neighborhood of $7,840; taking our present expenditure will leave us a margin of $2,600 or so. I do not think that this is calculated unfairly; it is what reasonably may be expected; and this will not be burdensome to the profession. If the building had been erected, consisting only of the rooms required by the Council, it would have been more expensive than it is now, for we would have had to do without these rentals, and we are perfectly safe in having a sufficient income to meet the deficiency, besides paying interest and making a deposit in a sinking fund each year.

Gentlemen, there is just one other feature that I wish to bring to your attention; I pointed out in the early part of my remarks that an attempt has been made to secure the repeal of the legislation secured in 1891, and other amendments to the Medical Act as well; now, as I have already pointed out to you, notwithstanding that it has been difficult to hold the balance of power between the contending factions and the school men, we have still made progress up to our present status, while practically the profession has been given self-governing power by the Legislature, but Acts were introduced, which had they been allowed to carry the self-governing power of the Council, would have very materially been interfered with. The first of these I find to be an Act to amend the Ontario Medical Act, in this form, section 45 is amended by adding as follows: "But the application of a plaster or plasters, with the object of healing or removing cancers or other growth, shall not be considered as practicing medicine or surgery within the meaning of this Act." Now, if the legislature may be induced by outside parties to amend the Medical Act, then the College of Physicians and Surgeons have no guarantee as to what their position will be from one year to the next. The only guarantee that the Council have, or rather, that the medical men can have, is to insist that legislation that is adopted shall emanate in some way from their representative body. If they are not satisfied to adopt that, then some other means must be devised to effect the same end; if they are not satisfied with the Council they must get some other Council, but the proposed legislation must be introduced by them. There must be compromises by individuals—there must be also compromises by the Council—compromises in different ways, but so long, gentlemen, as the legislation is in the right direction, moving forward in the interests of the profession, we shall be satisfied but we must endeavor to obtain legislation from our own representative body, and we must be prepared to resist shoulder to shoulder, any legislation introduced from any other source.

The next Bill that is introduced is to repeal section 27 of the Ontario Medical Act; it is introduced, not by the medical men, as in fact, neither was the other. It is therefore open to the same objections as the other. To repeal this section means to strike off the fee that was imposed in 1874, that every man that entered the profession knew that he was entitled to pay. The Council have the right in making up their estimates to calculate on this income from the profession; and now, when the Council have entered into certain obligations, calculating on this revenue, this Bill comes forward, not from the medical men, but from outsiders, to take away the fund upon which the Council have been relying to conduct the business of their profession. It is equally objectionable with the other, inasmuch as it does not emanate from the source from which it should emanate. Then we come to the next Bill. This unfortunately comes from a medical man; I say, unfortunately, because I hold the view that it is a great misfortune where we have medical men who should be the guardians of our interests in the House—I do think it a misfortune that they should have been swerved by some influence or other from their plain duty—or from what we might reasonably expect we might look upon as their duty. It is very evidently the plain and manifest duty of the members of the profession to take the ground that the legislation affecting their interests must emanate from the representatives of the profession and from that source only.

Gentlemen, I would say that the college, as well as, indeed, every member of the profession is indebted to the nine men who gallantly stood by the members of the profession in the Legislature, and thereby had these Bills thrown out and prevented them passing into law.

I believe it is well for us to watch this matter very closely, and to take what steps we can to oppose all such bills as do not come from the proper and legitimate source, and prevent them becoming law. I am in a position to say that it was through the efforts of the medical men in the house that we were able to get these bills thrown out. I am led to believe that it is quite within the possibility there may be efforts made during the next year to introduce some new legislation to make changes which are not in the interests of the profession; we may not be able to secure all that we believe desirable; still so long as in the main we are able to set our minor differences aside we shall be furthering the best interests of the profession.

Gentlemen, I trust that the brief allusion to these important facts which I have been able to make in the course of these remarks will inspire us to greater enthusiasm, and will not be without their result in furthering the interests of the profession.

Dr. Geikie—I do not think, Mr. President, that I would be transgressing if I were to move that the thanks of this Council be and are hereby given to you for your past efforts, and for the address that you have just delivered. I do not know anybody who has taken so much trouble as Dr. Williams has; I do not know anyone who could do it better; he has had great difficulties to contend with; I have seen him sharply criticised; but the fact is anything he has done is not justly open to that sharp criticism. I think he is entitled at the hands of the whole profession to our warmest thanks; for I feel convinced that he has ever done what he conceived to be the best that could be done for the interests of the profession.

Dr. Rosebrugh seconds the motion, and calls upon the Vice-President, Dr. Fowler, to put the question to the meeting.

Dr. Fowler expresses the pleasure it gives him to put this motion, which is carried unanimously amid great applause.

Dr. Fowler—I beg, sir, in the name of this Council to tender to you their very hearty thanks for the efforts you have put forth on behalf of the profession during the past year, and for the address you have delivered, and I trust that you may be long spared to contribute to the usefulness of this Council.

Dr. Williams—I thank you, gentlemen; I have been a good deal anxious about this Council meeting; while I was speaking I felt that it was very uphill work; I do not know that it has ever been harder work for me to speak than it has been for me to-day. And I attribute it largely to the anxiety I have felt as to the outcome of this meeting; furthermore, I have been in very poor health for sometime. But anything that I have ever done, I have done, not as a matter of duty, but because I regard it as my highest privilege to do anything I can and everything I can in the interests of the profession, not only as a member of the Council, but so long as I shall practice medicine. I have now to call upon you, gentlemen, for nominations for the office of President for this Council for the ensuing year.

Dr. Philip—I have much pleasure, Mr. President in proposing as president of the Medical Council the name of Dr. Fyfe Fowler, of Kingston. I need scarcely say a single word in nominating Dr. Fowler as President of this Council; he has at all times taken a very great interest in the proceedings of this Council, and not only is he favorably known as a member of this Council, but he has been for a great many years at the head of a the great medical educational establishment in the east. He is known, too, to the profession in the west; in the history of medicine for the last forty or fifty years Dr. Fowler has been very favorably known all over the Province. I am sure if we elect Dr. Fowler to the position of president of this Council that it will not only confer an honour upon him, but pleasure in nominating him.

Dr. Ruttan seconds the motion, and the chairman puts the question to the meeting, but remarks that under the rules the vote must be by ballot.

Dr. Bray moves, that Dr. Philip casts one ballot on behalf of the members of the Council. This is seconded and declared carried. The chairman announces that only one ballot has been cast, and that it is for Dr. Fowler as president; and declares Dr. Fowler unanimously elected president for the ensuing year.

Dr. Philip escorts Dr. Fowler to the president's chair, and presents him to the retiring President, Dr. Williams.

Dr. Williams—I have very great pleasure in welcoming you to this position, and I can heartily congratulate you on your election.

Amid applause Dr. Fowler takes the President's chair and addresses the Council as follows:—Gentlemen of the Council, I return my very hearty thanks to you for placing me in this position; I appreciate the honor very highly; it is one to which more distinguished members of our profession might very well aspire. I feel, however, that I labor under some difficulty in following immediately my esteemed friend Dr. Williams in this office; for undoubtedly to his tact, zeal, and energy is due the successful resistance which was made to the legislation inimical to the best interests of this Council and the profession at large. I shall, so far as in me lies, follow in his footsteps, and I trust that at the close of my term of office you will have no occasion to regret having placed me in this position.

Dr. Moore—Mr. President, I must congratulate you upon the position to which you have been elected, and I have very great pleasure in moving that Dr. Campbell, of London, be elected Vice-President for the coming year. You will all agree that I mention the name of one of our best known practitioners who has at all times, and upon all occasions, worked for the best interests of the profession and of the Council. He stands high in his profession; he has been honored, not only at home but abroad; and, sir, I am satisfied that when your term of office shall have expired you will be succeeded by a man in every way worthy of the position.

Dr. Bray—Dr. Campbell and I live quite close together and perhaps I know him better than the most of this Council. I feel it a pleasure as well as a duty to second the nomination of Dr. Campbell. He practices in a very important city in this province, and I may say truly, that although belonging to a different branch of the profession, if I may use the term, he is deserving of our very highest esteem.

In accordance with the rules Dr. Bray moves that Dr. Moore casts a ballot for the Council; this is seconded and agreed to. Dr. Moore votes; and the chairman announces the result of the election to be unanimously in favor of Dr. Campbell and announces him elected Vice-President.

Dr. Bergin moves, seconded by Dr. Logan, that the following be a committee to strike the Standing Committee for the ensuing year: Drs. Bray, Moore, Harris, Britton, Fenwick, Campbell, and Rogers, and the mover and seconder. The motion is put to the meeting and declared carried.

On motion of Dr. Bergin, the Council adjourned for thirty minutes to await the report of the Striking Committee.

On the Council resuming after adjournment, Dr. Bray presented the report of the Striking Committee, naming the various committees, as follows:

Registration—Drs. Rosebrugh, Johnson, Moore, Vernon and Orr.

Rules and Regulations — Drs. Day, Britton, Luton, Thorburn and Miller.

Finance—Drs. Philip, Williams, Fulton, Henderson and Ruttan.

Printing—Drs. Geikie, Johnson, Orr, Fenwick and Luton.

Education — Drs. Harris, Bergin, Williams, Bray, Johnson, Logan, Moore, Thorburn, and Rogers.

Property—Drs. Geikie, Britton, and Philip.

On motion, duly seconded, the chairman declares the report carried.

Dr. Moore gives notice that he will move at the next meeting that the word "July" in the third line of section, in the announcement be changed to "November."

Dr. Harris gives notice that he will introduce a by-law providing that examiners need not be in examination hall during examinations upon written papers.

Dr. Bray gives notice that he will move for the appointment of a committee to confer with the Medical Association, or with a committee of that Association, with a view to removing any grievances, if any there be.

Dr. Britton gives notice that he will move that a supplementary examination be held in Toronto on the second Tuesday in September, 1892, and that the notice be given in the usual way.

Dr. Bergin gives notice than he will move a resolution of regret at the death of the late Dr. Oliphant and of condolence with his family.

Dr. Johnson gives notice that he will move to bring in a by-law with the object of lessening the assessment for the next year.

Dr. Bergin gives notice that he will move to bring in a by-law allowing an appeal from the decision of the examiners to the Council.

The chairman calls for communications to be read, and the Registrar announces there ceipt of the following: From W. B. Nesbitt, referred to the Finance Committee; from W. D. Bergin, Niagara Falls, asking that the local police be instructed to enforce the Ontario Medical Act along the border. A resolution adopted by the Ontario Medical Association. A communication *re* elevator insurance, also one as to insurance on boilers, both referred to the Finance Committee. A communication from the Simcoe County Association, *re* fees; referred to Committee on Rules and Regulations. A communication from Arthur S. Teagart, asking to be exempt from the summer session; referred to Committee on Education. Communication from W. T. Bryson, W. J. Hunter, W. J. Brown, M.D., S. H. Fee, M.D., and H. H. Cook, Toronto, all referred to the Finance Committee.

Report from the Board of Examiners for the year 1892, referred to the Education Committee. A vote of thanks from the Ontario Medical Association for the use of certain rooms; referred to the Finance Committee. A petition from Hall & Kilmer asking for the registration as a qualified practitioner of Jacob Elinskey. A petition from Dr. Hague asking that Dr. Dewar be not further prosecuted. A communication from The Grip Publishing Company asking to be allowed rooms in the attic of the building for which they propose to pay rent; referred to the Property Committee. A communication from Dr. F. M. Campbell; referred to Committee on Legislation. A communication from Dr. Chalot was at the suggestion of Dr. Bergin, referred to the Education Committee. The Registrar announced a number of appeals from the decision of the examiners, which were all referred to the Education Committee. A communication from R. D. Ewing asking to be allowed to come in under the four years' course of study; sent to the Education Committee. Petitions from J. W. White, and M. A. Shaw asking for the return of fees, were sent to the Finance Committee. A petition from various education institutions including Trinity Medical College, Western University, McGill College and Toronto University asking that the date of the next examinations be changed to April, '93. A communication containing the credentials of Dr. Vernon as a representative from the homœopathic branch in place of Dr. Oliphant, deceased.

Dr. Harris moves, seconded by Dr. Bray, that the Committee on Credentials be the same as last year. Carried.

The President—Are there any enquiries to be made, or any miscellaneous business?

Dr. Rosebrugh—Did you receive a communication from the solicitor about the code of ethics?

The Registrar—Yes. I did not present it, because I looked upon it as belonging to your committee. There is a communication from the solicitor; there was a committee appointed to deal with this matter last session, and they were to get this information. I thought it would come up in their report.

Dr. Rosebrugh—The Council ordered the information from the solicitor; it was sent in, and is now the property of the Council. If you refer it to the Registration Committee they will deal with it.

The President—Very well then, we will do that.

Dr. Bray—I think that the Committee on Credentials should meet now. He explains that Dr. Vernon's position in the Council is not legally established until that committee has made its report, and the Committee on Credentials retire for a moment and examine Dr. Vernon's papers. Returning, Dr. Bray reports on behalf of the committee that Dr. Vernon, of Hamilton, has been duly elected to fill the place vacant by the lamented death of Dr. Oliphant. He moves the adoption of the report, which is seconded by Dr. Moore, and carried.

Dr. Campbell moves that the Council detective, Mr. Webb, now present his report. This is agreed to, and Mr. Webb reads his report. At its conclusion he expresses his willingness to give any further information not contained in the report.

Dr Bray—I take exception to one remark in the report reflecting upon Mr. Bartlett's son in Windsor; I think it is unwise; if the Police Magistrate has any leanings against the Council it will be well not to further antagonize him.

Dr. Bray—I look upon the whole report of Mr. Webb's as not at all flattering to the Council, and if it is published as read it will certainly injure us.

The President—This report is not endorsed by the Council; we are not responsible for it; it is merely presented here.

On motion of Dr. Bray, the Council adjourns at 4.40 p.m., until 10 a.m., to-morrow morning (Wednesday, 15th June, 1892.)

(*To be continued.*)

Selected Articles.

IRREGULAR MANIFESTATIONS OF MALARIA.

From early times, clinical observers have been familiar with the fact that the malarial intoxication is manifested not only in the form of paroxysms of chills and fever, but also under that of various disturbances of the circulation, respiration, and digestion, possibly of nervous origin, and in motor and sensory disturbances of undoubtedly nervous character. An accurate knowledge of the subject, however, has by no means been widely diffused among the ranks of the profession, and prior to the discovery by Laveran and other observers of the characteristic hematozoa of malaria, the diagnosis of these cases has invariably been involved in more or less doubt and no little dispute. That "malaria is a cloak for ignorance" has long been a reproach made by the laity against physicians, and the statement undoubtedly contains an element of truth.

From many standpoints the lecture delivered by Professor Da Costa at the Pennsylvania Hospital, and reported in the *International Clinics* for October, 1891, is an important contribution to the subject of malarial paralysis. The diagnosis of the case there recorded was rendered absolutely indisputable, not only by reason of careful observation of the symptoms, and by the therapeutic test, but also by the discovery of characteristic parasites in the blood. Professor Da Costa lays great stress upon two facts of importance in diagnosis, namely, that there may be an intermittent paralysis which is not malarial, and secondly, that the manifestations of malarial paralysis are, in the majority of cases, far from being periodic. He distinguishes three forms: First, general paralysis or paraplegia, with irregular symptoms; secondly, the form in which periodicity is striking, which is more commonly hemiplegia; thirdly, the rarest form, that in which organic disease is produced by the malarial intoxication, and in which periodicity and variability are not prominent, the case running much the course of ordinary paralysis when produced by its usual causes. The last-mentioned form, commonly due to a lesion such as meningitis or hemorrhage, shows itself most often in the shape of a hemiplegia. It is not, strictly speaking, a malarial palsy, although malarial fever has brought it about. It is rather palsy in malarial disease.

In the treatment of malarial palsies quinine must be given in large doses, for "the malady will go on unchecked by small doses—nay, it may develop while these, or even while what are generally considered as sufficient doses, are being employed."

In addition to the palsy of the extremities in the case reported by Da Costa, interesting ocular lesions were found, the details of which have been published in full, with charts, by Dr. Harlan, in the *Transactions of the American Ophthalmological Society*, vol. V, 1890. Headaches, impairment of memory, outbreaks of hallucinations and of maniacal delirium, characterized the progress of the disease. Notwithstanding all this, however, recovery was complete. "Eye symptoms, brain symptoms, all disorder seemed to melt away under the potency" of quinine, coincidently with the disappearance of the micro-organisms from the blood.

Less striking but more common than cases of the nature of that described by Professor Da Costa, are malarial neuralgias, especially supraorbital and infra-orbital. In these cases the manifestations are sometimes, but not invariably, periodic; and the pain, obstinately resistant to ordinary anodyne and nervine medication, rapidly disappears under the influence of quinine; but, as in the cases of palsy, the drug must be given in large doses: ten grains on going to bed, and from ten to fifteen grains upon rising in the morning, repeated for two or three days, have absolutely and permanently cured cases that have resisted not only ordinary treatment, but even long courses of what the elder Gross used to call "piddling doses" of quinine.—*Ed. in Med. News.*

◆

FOR chronic rheumatism Whitla (*Med. News*) suggests:—

℞.—Sodii iodidi . . .	ʒ ij.
Sodii bicarbonatis . .	ʒ iv.
Potassii bicarbonatis .	℥ j.
Liquor. potassii arsenitis	f ʒ iss.
Decoct. sarsaparillæ comp.	ad f℥ xx. M.

Sig.—A tablespoonful in a considerable amount of water, three times a day, after meals.

TREATMENT OF WEAK LABOR PAINS.

Weakness of labor pains before rupture of the membranes is hardly dangerous for mother or child, while weakness of pains after the membranes have ruptured may gradually lead to serious damage, as asphyxia and death of the child, grave symptoms of pressure in the mother and dangerous atonic hæmorrhage during the placental period. Prof. Max Runge, Göttingen (*Therap. Monatshefte*, IV., I, 1890) distinguished (1) *Primary* weakness of the pains, *i.e.*, the pains are weak and inefficient from the beginning of labor, which is seen especially in individuals of weak constitution, and in great distention of the uterus by hydramnios or the presence of several fœtuses; and (2) *secondary* weakness of the pains, in which there is good and energetic contraction at the beginning, but which, from too great resistance, as from a large head, a narrow pelvis or rigid soft parts, finally become weaker and even cease.

The treatment of *primary* weakness consists in strengthening the patient by proper nourishment during the course of labor, or where it is possible, even during pregnancy, the administration of wine, coffee, etc. The bladder and rectum should be emptied, and the supply of good air and the proper temperature of the lying-in-room should be regulated. In weakness of the uterine musculature and slow dilatation of the os uteri, warm vaginal injections of carbolized water (1 to 15 per cent.), repeated every one to two hours, are useful; if these fail, full baths and finally large doses of narcotics are indicated. In abnormal distention of the uterus it is advisable to puncture the membranes as soon as the os uteri is half dilated, in order to avoid a prolapse of the umbilical cord at a time when version and extraction would be impossible.

The treatment of the *secondary* weakness must be more energetic; firstly come stimulants, as wine, champagne; in great sensibility, opiates or a few inhalations of chloroform are to be advised. In case the pains become spasmodic, large doses of narcotics, as chloroform-narcosis, chloral hydrate, 30 grains by the mouth or 1¼ drachms per rectum, morphine subcutaneously, (¼ to ⅓ grain), are indicated, in order to give the patient rest. Warm baths of forty-five minutes' duration are often very efficacious.

Puncture of the membranes when the os is incompletely dilated, or the trunk of the child has not descended into the pelvis, is not without danger, as the umbilical cord may prolapse; hence puncture should be avoided as much as possible.

He would reserve the introduction of a bougie into the uterus for especially difficult cases. Frictions of the uterus with the hand are only applicable just before the passage of the head over the perineum, or during the placental period.

Runge rejects, as does Schrœder, the use of ergot during the first and second stages of labor, thus being opposed to Säxinger and Schatz; but on the contrary, he emphasizes the value of ergot and especially of cornutin (Kobert's) for the placental period. He leaves undecided the question whether strychnine is an oxytocic or not.—*Annals of Gynecology and Pediatry*.

SIR JAMES CRICHTON-BROWN ON SEX IN EDUCATION.

The address which Sir James Crichton-Browne delivered to the members of the Medical Society of London on the occasion of celebrating the hundred and eighteenth anniversary of the Society on the 2nd inst., was one of great interest and extreme importance, for it dealt with a question which must have a commanding influence on the destinies of the human race, viz., the extent to which difference in sex should call for difference in education.

Sir James is of opinion that the best way of estimating the difference between the intellects of men and women is to consider and to determine the difference between their bodies. These differences are, he maintains, real and deeply founded in structure, and he selected three points for special elucidation—the actual weight of the brain in the two sexes, the specific gravity of the two chief structures, the gray matter and the white of which it is composed, and the manner in which blood is distributed to its different parts. He showed that the female brain is lighter than that of the male, not only absolutely, but relatively to the respective statures and weights of the two sexes; that the specific gravity of parts of the female brain is less than that of corresponding parts of the male brain; and that the blood supply, which in the male is directed more towards the portions which are concerned in volition, cognition, and ideo-motor processes, is in the female more directed towards portions which are mainly concerned in the discharge of sensory functions. These facts lead to the conclusion that the brain of man is an organ broadly distinguished from that of woman, and that each is fitted for its own particular work. By forcing the education of girls in directions formerly reserved more exclusively for males, he admits they have had opened up to them interests and attainments formerly denied them, but he asserts that the benefits and apparent advantages have been attained by serious drawbacks, and that the new sphers of work open to women are apt to involve grave dangers to health, both immediate and prospective, which have not yet been sufficiently appreciated.

In support of his assertion Sir James brings forward facts which lead to the conclusion that the brains of many school girls are worked in a manner which is good neither for the healthy development of the mental or physical powers. At one girl's school where he had been permitted to make inquiries, he found that out of 187 girls belonging to the upper and middle classes, well-fed and clad and cared for, and ranging from 10 to 17 years of age, as many as 137 complained of headaches, which in 65 instances occurred occasionally, in 48 frequently, and in 24 habitually. He cited the authority of Sir Richard Owen for the position that children have no business with headaches, and that something must be wrong in the school in which they frequently suffer from them. If, as he believes, girls are frequently engaged until past ten o'clock at night in preparing their school tasks, it is easy to understand that a state of brain strain is induced which is fatal to normal sleep, and is destructive of breakfast appetite. When a girl is unable to eat a hearty breakfast Sir James considers that she ought not to be allowed to undertake her school work for that day, and we think most medical men will agree with him. Loss of appetite for one's breakfast if often the first indication of health giving away, and to force girls to hard brian work when the digestive organs have struck must end in disaster.

Referring to the recent action of the St. Andrew's University in throwing open the classes in arts, science and theology to women, Sir James said he regarded it as a retrograde and mischievous step, for "what was decided amongst the prehistoric protozoa cannot be annulled by Act of Parliament; and the essential difference between male and female cannot be obliterated at a sweep of the pen by any Senatus Academicus." The tall, graceful and lovely English girls whom we meet now and again are, he remarked, the offspring of mothers who were denied the advantages of a "High School" education. It is depressing to think what the next generation of English girls will be like. "I once" he said, "saw a vision that has haunted me ever since. It was a score of sweet girl graduates from a celebrated college standing together in a group on the platform of a provincial railway station, waiting for trains to carry them home at the end of the term. Sweet, they were, I doubt not; most of them carried musical instruments, but they were not, upon the whole—well, not just—'fairest of the fair' to look upon. I am afraid I shall be called ribald and profane, but I should describe them as pantaloon-like girls, for many of them had a stooping gait and withered appearance, shrunk shanks, and spectacles on nose, Let us conserve the beauty of our English girls very jealously. I would rather they remained ignorant of logarithms than that they lost a jot of it."

This is a melancholy outlook we admit, but we would fain hope that withered, shrunken-shanked girls will always be a poor miserable minority and be rarely met with except among town dwellers. Those who are responsible for the education of girls will, no doubt, in most cases also provide for the needs of physical development, but even if in the higher circles of society that is neglected, we may be sure that a sufficient number of healthy well-developed women will be found in the lower walks of life, especially in rural districts, to ensure the propagation of the species under as favorable conditions as have ever obtained in the history of the human race.

Creosote in Phthisis.—In a new communication on this subject the writer reaffirms the convictions expressed by him in previous papers as to the great value of this remedy. He finds that it relieves cough, lessens expectoration, improves nutrition and lessens the number of bacilli even to extinction. The physical signs show evidences of a lessened area of damaged pulmonary tissue, and even the occlusion of small cavities.

What are the drawbacks? what the contra-indications in the use of creosote? Does it ever work harmful results? The objections to the use of creosote are few; and if any occur, they are usually obviated by a little judgment and good sense. Occasionally the stomach becomes intolerant. This is shown either by headache, inappetance, and a sluggish feeling in the performance of usual duties; or there is slight pain or uneasiness in the region of the stomach, evidently brought on by the action of creosote. These ill-effects are frequently occasioned by a too rapid increase of the dose, by a faulty method of administration, or by some evident personal idiosyncrasy; or, indeed, the true explanation is simply that there is an irritative or weak stomachal condition connected with the presence of tubercular deposit in the lungs, and dependent on catarrhal gastritis, or a possible atrophy of the gastric tubules. The remedy of this state is not far to seek. Diminish the dose of the remedy for a time, or in extreme cases interrupt its use for a while, and resume prescribing it in small and slowly increasing doses, and more frequently repeated, only after a period of complete rest from taking it. If diarrhœa be occasioned by its use, the same rules apply, or, indeed an appropriate opiate may be added in small amount to each dose with good effect, so far as toleration is concerned.

In regard to the alleged effect of creosote on the kidneys, Robinson expresses himself as follows:

Usually the ordinary tests for creosote do not show its presence in the urine. It has been found there, however, and it is therefore conceivable that it may irritate the kidneys at times in a pronounced manner. I do not believe, after careful watching, that this will often take place, unless large and frequent doses of the drug be given. It is true that under these circumstances I have recognized a passing albuminuria, which disappeared when the amount of creosote taken by the patient was diminished. I think it is wisdom, in view of such facts, to be on one's guard and to examine the urine carefully every few days, at least, when the patient is taking large amounts of creosote.

Is it a contra-indication to the use of creosote when renal diseases already exist? In reply, I would say that under these circumstances I have given creosote and have observed no evil effects from its use, although it is true I have not been willing to increase the dose beyond six or eight minims in the twenty-four hours. In so doing I believe I have acted prudently and wisely.

In regard to hæmoptysis, is there any reason to believe that the use of creosote occasions hæmoptysis, or makes patients more liable to it? According to Dujardin-Beaumetz, creosote in appreciable doses, while it is eliminated from the body by way of the respiratory organs, congests the bronchial mucous membrane, and thus promotes the occurrence of pulmonary hæmorrhage. According to him, the drug is strongly contra-indicated whenever hæmorrhage actually occurs. Nothing in my experience thus far tends to corroborate this view. It seems to me prudent, however, to recognize the possibility of what Beaumetz affirms, and for this reason to interrupt the use of creosote during the time there is hæmoptysis, or an evidently imminent tendency to it.—B. Robinson, in *N. Y. Med. Record.*

WORDS OF WISDOM TO MEDICAL GRADUATES.—In his able address to the graduates of the Buffalo University Dr. Geo. M. Gould, editor of the *Medical News*, offers many valuable suggestions, which are worthy of being read in full.

To be explicit and detailed, let me counsel a few "dont's."

1. Don't be in a hurry for success.

2. Don't consult or fraternize with quacks of any kind or degree.

3. Don't be afraid of speaking out your denunciation of quackery, regardless of the loss of a few possible patients and the charge of jealousy.

4. Don't support medical journals run in the interests of the advertisers, journals that are muzzled, that are conciliatory to, or non-denunciatory of quackery.

5. Don't sign a single certificate as long as you live, as regards special, proprietary, or secret preparations.

6. Don't write a medical article in which such preparations are praised or even mentioned.

7. Don't accept commissions of presents from druggists, manufacturers, opticians, or surgical-instrument dealers.

8. Don't let any professional allusion to yourself, your opinions, or your work get into the lay newspapers. Don't be a sneak advertiser, a "newspaper doctor."

9. In your own righteous wrath against quacks outside of the profession, don't forget that there are many within the profession, and that they are the most despicable—true wolves in sheep's clothing. I would rather be the "Wizard King of Pain," and buy affidavits of impossible cures at twenty dollars each, than a respectable hypocrite indirectly or secretly hob-nobbing with newspaper reporters and supplying them with "data."

As physicians charged with the health of the present and future, our duty must become clear: the entire witch's Sabbath of 'pathies and 'isms, the morbid cranks, drunk with ignorance and conceit; the sly cunning of advertising schemers, the tricks and frauds of medical parasites to suck the blood of their dupes, the patent medicine disgrace—all these things must be choked out of existence. It is a warfare, not a compromise, we are entering upon. It is not a theory, it is a condition that confronts us.—*Medical News*

SEX AND MUSIC.—Sir J. Creighton-Browne's oration before the Medical Society has been read with interest far beyond the circle to which it was immediately addressed, having penetrated to quarters usually impervious to physiological enlightenment and hygienic remonstrance. No need, therefore, to apologise for returning to it, charged as it is with an educational value which re-discussion will be found to strengthen, certainly not to impair. Even before the difference between the sexes in cerebral structure and function, were so scientifically demonstrable as now, there were practical tests in the sphere of education itself which pointed irresisibly to the conclusion arrived at by the medical orator. Take, for instance, the art of music. There is no room here for the contention that, as compared with the boy, the girl has not had fair play—that opportunities for cultivating the art have in her case been few, in his case many. The reverse is the truth. If there is a branch of education in which girls have been schooled to the neglect of every other, it is precisely that of music. It is among the primary subjects to which she is put, and among the very last she is allowed to leave off. Not one hour a day but many hours out of the twenty-four are consumed by her at the piano, to say nothing of other instruments, while singing lessons are usually given in supplement to these. It might have been thought that if practice gives perfection woman would have excelled her male counterpart not only as an executant but as a composer. But what are the facts? In instrumental performance she cannot for a moment compare with him, while as to composition she is nowhere. The repertory of music from the dawn of the art to the present day owes simply nothing to her. Considering the time she has spent over it, her failure to evolve evolve new harmonies or even new melodies is one of the most extraordinary enigmas in the history of the fine arts. It has been remarked, but never explained, by such accomplished æsthetic writers as Lady Eastlake in her celebrated essay on "Music," and by such keen psychological analysts as Mr. G. H. Lewes in his "Life of Goethe"; it is indeed, a problem still awaiting solution, unless we can solve it by an appeal to such facts as Sir J. Crichton-Browne adduced in his recent oration—the inferiority of woman to man in the cerebral substratum of ideomotor energy. Why with such a record of "no results"—so far, at least, as the production of a female Handel or Beethoven or even a female Gluck or Bellini is concerned—music should usurp such a preponderant place in girls' education it is difficult to divine. We have seen the practice defended on the same grounds on which in our classical schools the writing of Greek and Latin verse is vindicated; a finer appreciation is thus attained, in the girls' case, of musical excellence, in the boys' of the Hellenic and Latin masterpieces. "Tis better to have tried and failed than never to have tried at all," while failure gives a truer sense of what perfection consists in. Such is the argument—for what it is worth. But even on this analogy the boy sometimes succeeds where the girl invariably fails. In George Buchanan John Milton, Arthur Johnston, Joseph Addison, Vincent Bourne, Thomas Gray, to say nothing of the late Marquess Wellesley and Benjamin Hall Kennedy, we have classical poets hardly inferior to any but the best of antiquity; but where, in ancient times or in modern, can woman, with all her practice, be found to have created one *chef-d'œuvre* in music? The inference implied by the negative answer to such a question seems simply this: that in the higher efforts of mind—even in those where the admixture of an emotional element, as in music, might be supposed to give her the advantage, woman is inferior to her male counterpart, and cannot by any educational forcing system be made to equal him—deficient as she is in the physiological conditions of ideoplastic power.—*Lancet.*

SALICYLATE OF LITHIUM IN RHEUMATISM.—M. Vulpian has read, before the Academie de Medecine, a summary of the results of his experiments on salicylate of lithium in articular rheumatism. He states that his experiments indicate that lithium salts are not so poisonous as they are supposed to be. Salicylate of lithium is not more dangerous than salicyate of sodium, and can be administered in almost equally strong doses. In acute articular rheumatism salicylate of lithium relieves the pain which often remains in the joint after the swelling has disappeared, whereas colchium and salicylate of sodium have no effect. M. Vulpian believes that salicylate of lithium is especially beneficial in fibrous rheumatism. In progressive subacute rheumatism M. Vulpian has seen salicylate of lithium produce great improvement. Salicylate of sodium has been successful in such cases, and produced amelioration of the patient's condition; but both greater and more lasting benefit is obtained by salicylate of lithium. In chronic articular rheumatism M. Vulpian has found salicylate of sodium useless, whereas salicylate of lithium has had a marked effect on the joints, which become less swollen than before the treatment. This drug sometimes induces headache and deafness, but is never followed by the distressing noises which charcterize treatment by salicylate of sodium. The headache and deafness disappear quickly.—*London Med. Record.*

FEL BOVIS INSPISSATUM AS A THERAPEUTIC AGENT.—In a paper read before the Section on General Medicine, of the New York Academy of Medicine, Dr. W. H. Porter states that ox bile is of great service in typhoid fever, nephritis, faulty digestion, etc. He also calls attention to its great power and activity in softening and removing fæcal matter from the colon, in connection with chronic constipation or where impaction has occurred. The fel bovis alone, or perhaps better in combination, as in the following formula, will soften and remove quite effectually impacted fæces and stimulate the lower bowel to action when all other means have failed. It is also a very powerful agent for bringing away the gas and relieving troublesome tympanites.

R Fel. bor. inspis., ... ʒ j.
Glycerini, ... ʒ iv.
Ol. ricini, ... ℥ ij.
Aquæ. q. s. ad. . . . . . . ℥ viij.

M. Sig. This added to pint, or better still, a quart of warm soapsuds; the larger amount can be retained when slowly injected into the lower bowel.

After several copious injections have been administered and retained for a time and come away without producing the desired effect, we are justified in assuming that the colon is free. This has been verified with sufficient frequency in the deadhouse to warrant the statement that it will invariably soften and remove fæcal matter from the colon, of course, excepting a tight strictu re colon or an occlusion of the lumen of the gut, which cannot be passed by the enema.—*Dietetic Gazette.*

At the annual banquet of the Marion-Sims College of Medicine, held at the Lindell Hotel, April 26th, 1892, in response to a summons for a speech, Dr. T. B. Taylor, Secretary of the Faculty, got off the following parody.

THE OLD OAKEN BUCKET.

With what anguish of mind I remember my childhood,
  Recalled in the light of knowledge since gained;
The malarious farm, the wet, fungus-grown wildwood,
  The chills then contracted that since have remained;
The scum-covered duck-pond, the pig-stye close by it,
  The ditch where the sour-smelling house-drainage fell,
The damp, shaded dwelling, the foul barn-yard nigh it,
  But worse than all else was that terrible well
And the old oaken bucket, the mold-crusted bucket,
  The moss-covered bucket that hung in the well.

Just think of it—moss on the vessel that lifted
  The water I drank in the days called to mind;
Ere I knew what professors and scientists gifted,
  In the waters of wells by analysis find;
The rotting wood-fibre, the oxide of iron,
  The algæ, the frog of unusual size,
The water impure as the verses of Byron,
  Are things I remember with tears in my eyes.

And to tell the sad truth—though I shudder to tell it—
  I considered that water uncommonly clear,
And often at noon, when I went there to drink it,
  I enjoyed it as much as I now enjoy beer;
How ardent I seized it with hands that were grimy,
  And quick to the mud-covered bottom it fell,
Then, reeking with nitrates and nitrites, and slimy
  With matter organic, it rose from the well.

Oh, had I but known them in time to avoid them,
  The dangers that lurked in that pestilent draught—
I'd have tested for organic germs, and destroyed them
  With potassic permanganate ere I had quaffed;
Or, perchance, I'd have boiled it and afterward strained it
  Through filters of charcoal and gravel combined;
Or, after distilling, condensed and regained it
  In potable form, with its filth left behind.

For little I knew of the dread typhoid fever
  Which lurked in the water I ventured to drink;
But since I've become a devoted believer
  In the teachings of science I shudder to think.
And now, far removed from the scenes I'm describing,
  The story for warning to others I tell,
As memory reverts to my youthful imbibing
  And I gag at the thought of that horrible well,
And the old oaken bucket, the fungus-grown bucket,
  In fact, the slop-bucket, that hung in the well.

—*Medical Mirror.*

FOR RHEUMATISM.—Dr. Conger, *N. E. Med. Monthly*, says he has tested the following in rheumatism, and knows whereof he speaks:

℞—Pot. iodid.	. . . .	ʒ iiss.
Tinct. cimicifugæ	. . . . .	℥ iss.
Vin. colchici. sem.	. . . . .	℥ j.
Ext. hyoscyami. fl.	. . . .	℥ ss.
Syr. simpl.	. . . .	℥ v.

M. Sig.—ʒ i. well diluted every four hours.

UNITED STATES CIRCUIT COURT,

EASTERN DISTRICT OF LOUISIANA.

BATTLE & CO., CHEMISTS'
  CORPORATION,
    vs.
FINLAY & BRUNSWIG.
} No. 11,995, IN EQUITY.

This cause came on to be heard at this term, and was argued by counsel; and thereupon, upon consideration thereof, it was ordered, adjudged and decreed, as follows, viz:

"That complainant has an established property right in the word 'BROMIDIA,' as a trade-mark applied to a certain liquid medical preparation mentioned in the bill of complaint herein, and that defendants have infringed the rights of complainant in the said trade-mark."

That the injunction issued *pendente lite* be maintained, and the defendants, George R. Finlay and Lucian N. Brunswig, co-partners, doing business under the firm name of Finlay & Brunswig, and each of them, their clerks, servants and employes, be restrained and prohibited from printing, affixing or using the word "BROMIDIA," or any imitation thereof on the label of any medicinal or chemical preparation, or applying the name or title "BROMIDIA" to any medicinal or chemical preparation, and from offering for sale or giving away any bottles or packages marked with said word "BROMIDIA," or any imitation thereof, other than the preparation manufactured and labeled by the complainant: and it is ordered that the parties be referred to J. W. Gurley, Master, to take an account of the profits made by the defendants in manufacturing and selling, and in selling any medicinal or chemical preparation under the name, mark or title of "BROMIDIA," or upon which the name, mark or title of "BROMIDIA" was printed or written, or to which it was applied by them, since the first day of January, 1886; and for the better taking of the same discovery of the matters aforesaid, the said George R. Finlay and Lucian N. Brunswig are ordered to render an account of the number of packages aforesaid sold by them, and of the prices at which sold and prime cost thereof; and to produce before and leave with said Master, all deeds, books, papers and writings in their custody or power relating thereto, and are to be examined as said Master shall direct: and that they be ordered and decreed to pay to complainant the profits of all such sales made by them, and all costs of this suit.

[Signed] EDWARD C. BILLINGS,
April 23, '92. Judge.
Clerk's Office—A true copy.
E. R. HUNT, Clerk.
[Seal] April 23, '92, By J. CARTER, Dep. Clk.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science, Criticism and News.

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AGENTS.—Dawson Bros., Montreal ; J. & A. McMillan, St. John, N.B. ; Geo. Street & Co., 30 Cornhill, London, Eng. ; M. H. Mahler 23 Rue Richer, Paris.

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DIET IN DIABETES.

Leaving the etiology and pathology of this obscure and baffling disease unmentioned, as beyond the scope of this article, it may be stated in general terms that any case in which properly controlled diet fails to cause distinct improvement in the two main symptoms, the glycosuria and its consequent thirst, is not likely to be much benefited by drugs. Fagge argues in his usual keen and satisfying way that the real disorder in diabetes mellitus is mainly "an excessive, flow of sugar from the liver into the blood," and not as others have asserted, either the entrance of ingested sugar into the blood, without previous conversion into glycogen in the liver, or a diminished metabolism of sugar in the tissues in the normal way, finding its end in the development of heat and force. This being regarded as settled, it follows that diet is the main consideration in treatment. From this point of view Dujardin-Beaumetz, classifies diabetics, as 1, mild cases ; 2, cases of medium intensity ; 3, grave cases.

Mild cases are those in which the adoption of a diet in which carbohyrates are very much limited, is followed by the disappearance of sugar from the urine, but in which dietary indiscretion causes its re-appearance. Moderate cases are those in which ordinary restriction confines the excretion of sugar to from 10 to 20 grammes, (2½-5 drs.) per day. Grave cases are usually those of young patients, in whom thirst, emaciation, and muscular weakness are very marked, and the hepatic function so disordered that sugar appears in the urine, even when nothing but albnminous diet is ingested, proving that sugar is formed even out of nitrogenous matter, their own muscles being transformed into sugar and urea.

Prognosis in most cases depends more upon two points than upon all else besides : the age of the patient, and the improvement under restricted diet. The variations in the diet lists prescribed by different authorities, though at first sight serious, are really trivial, the two important variations being upon the use of milk and of fruits. All remarks upon diet lists must be prefaced by the generalization that each case of diabetes must be dieted in such way as gives the best results, a point which can be ascertained only by repeated examinations of the urine. It is not usually hard to enlist the patient's interest and induce him to submit frequent specimens for examination. Milk is, doubtless, in spite of the presence of lactose, an invaluable article of diet in many cases, if not in the majority ; certainly in those not infrequent ones in which the kidney also is more or less at fault, and cannot bear an undue strain upon its urea-excreting function, such as is put upon it by an exclusively nitrogenous diet. Buttermilk has an advantage, in that its sugar has been converted into lactic acid, and a drawback in that its fats—the most valuable part—have been largely abstracted, unless it be left full of floating particles of butter not fully "gathered." For the same reason sweet milk is improved for the diabetic by the addition of cream; indeed, pure cream is better still. Koumys, since its sugar is converted into alcohol, is an excellent article of food, and drink, as well. As regards fruit, sweet and starchy articles, and all preserved and candied fruits, are to be *taboo.* Many authorities allow acidulous fruits, such as gooseberries, currants, cherries, and, some add plums and strawberries, and even apples, if sour, used fresh, and, of course, not sweetened with sugar, since the chemists have shown their sugar is mostly levulose, and not so apt to be turned into glycogen and grape sugar.

For potatoes a satisfactory substitute may be found in artichokes, and any green non-starchy vegetable, such as spinach, beet-tops, cress, asparagus (green part), chicory, sorrel, cucumber, watercress, mushrooms, truffles, and any vegetable salad, may be safely used. The only article contra indicated in the way of fish, meat, or game, is liver and oysters, mussels and clams, in which the liver is so large. The great difficulty lies in securing abstention from bread. Thoroughly parched (not burnt) in the oven, it may be safely used. Almond flour is usually too bitter, and gluten flour too starchy, to be of service. Good authorities choose a limited amount of ordinary bread, 1-2 oz. per diem, as being the lesser of two evils, if the urinalysis permits of it. The gluten flour usually sold will, in nearly every case, prove disappointing, unless the name of some maker be known to the prescriber as reliable. It is a very easy matter to test it with the microscope, and by the addition of iodine solution to a watery mixture of the suspected article, starch if present giving blue.

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ASSOCIATION OF MEDICAL OFFICERS OF THE MILITIA OF CANADA.

The first annual meeting of the Association of Medical Officers of the Militia of Canada, was held in the Canadian Military Institute, June 2nd, President Dr. F. W. Strange in the chair. Among those present were Drs. C. S. Ryerson, Secretary; A. A. Dame, W. T. Stuart, Baldwin, Moore, Elliot, Orton, Preston, Osborne, Rennie, Lesslie, Rice, McWilliam, Saunders, McCrimmon, Grasett, Warren, Raikes, King and Clark. After the constitution and by-laws, which were submitted by the Secretary, had been adopted, the President, Dr. F. W. Strange, delivered his address to the Association. For the past 26 years, during which the militia of Canada as at present organized, has existed, the medical officer of a battalion, he said, has been but a regimental unit, and one of the objects of the formation of this Association was to draw these regimental units out of their retirement, and by binding them together to give them their proper position in the military history of the country, and impart an interest and increased efficiency in the work in which they were engaged. The status and rank of the regimental medical officer, he said, also needed some consideration. The medical officer should be an officer in the ranks, the same as any other officer, and length of service should be considered in his promotion as is done with the militia officers. "Let us have surgeon-captains, surgeon-majors, etc., and the officers promoted according to length of service and qualification, and the injustice of chance will no longer assist the officer in obtaining his proper position in the militia." The most important object in the formation of the Association, he said, was the purely professional aspect. The reading and discussion of papers on topics relating to military medicine, surgery and hygiene has received no attention in Canada, and the contribution of papers on military matters will always be one of the main features of this Association. Dr. Warren then read a paper on "Ambulance Work during the Franco-Prussian war," and Dr. Daniel Clark, once Inspector of Surgeons in the United States army, contributed a very interesting paper on "Some Brain Wounds, with Results."

A smoking concert was given in the evening at the residence of Dr. Ryerson, to which the military officers of the city were invited to meet the surgeons of the different corps, comprising the Military Medical Association, of which Dr. Ryerson is the Secretary. There was a large attendance.

The following morning the Secretary read for Dr. Wm. Canniff a very interesting paper on "Some Experiences of a Surgeon during the American War." Dr. Canniff was assistant surgeon in the Royal Artillery. The election of officers resulted as follows: Hon. Pres., Surgeon-General Bergin; President, Surgeon F. W. Strange, Vice-Presidents, Ontario, Surgeon V. H. Moore; 41st Brockville Rifles; Quebec, Surgeon Roddick, 1st P. W. O. Rifles, Montreal; New Brunswick, Surgeon-Major Connell, 67th Batt.; Nova Scotia, Surgeon D. A. MacGillivray, 94th Highlanders; P. E. I. Surgeon Jenkins, Garrison Artillery, P. E. I.; Manitoba, Surgeon G. T. Orton, 90th Winnipeg Rifles; B. C., Surgeon Duncan, R. C. A., Victoria; Treasurer, Surgeon Tracy, 49th Hastings Rifles; Secretary, Surgeon G. Sterling Ryerson, R. G., Toronto. It is likely that the Association will hold a special general meeting at Ottawa in September, during the meeting of the Dominion Medical Association in that city.

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OWING to the pressure on our columns this month, on account of giving a full report of the meetings of the Ontario Medical Association and the Ontario Medical Council, we have had to increase the size of the LANCET to eight extra pages.

Golden Rules of Surgical Practice.—*Continued—(Times and Reg.):*

Erysipelas.—Support and stimulate in erysipelas; never deplete or depress.

Do not dress operation or fresh wounds, or attend midwifery, if you are dressing a case of erysipelas; or, in fact, any infectious disease.

Eye.—Never prescribe for an inflamed eye without doing three things, viz.:

1. Without examining for a foreign body imbedded in the cornea, or lodged beneath the lids.
2. Without seeing if cornea or iris is implicated.
3. Without determining the presence or absence of tension of globe.

Never use violence in opening the eye, if there be much swelling or spasm, because if there be a deep ulcer of the cornea present, perforation may take place.

Never apply lead lotion (Goulard water) should there be the slightest abrasion of the corneal epithelium. [Solid particles of oxide or carbonate of lead become deposited and form permanent opacities.]

Never trust the nurse with verbal instructions for washing out the baby's eyes in infantile ophthalmia. Do it yourself.

Never forget that wounds of the ciliary region are most dangerous, and if they involve the lens, or if they are attended with loss of vitreous, they need excision of the eye.

Never put atropine into an eye:

1. Without testing tension.
2. Without examining for locomotor ataxia (for ataxial cases walk by sight).
3. Without due care as to strength in old people.

[N. B.—Beware of atropine, ergot, colchicum in old people.

Fracture.—Remember that crepitus may not be obtained in:

1. Riding of fragments.
2. Impaction of fragments.
3. Entire separation of fragments.
4. Muscle or blood clot interposed between fragments.

Remember that there is a pseudo crepitus, very like true crepitus, in teno-synovitis, joint effusion, and caries of a joint surface.

Do not forget effusion in or around the dislocated head of a bone sometimes leads to a creaking or crepitus closely resembling that produced by a fracture.

The Virulence of Pneumonic Sputum.—Bordoni-Uffreduzzi (*Centralblatt f. Bak. u. Parasitenk,—Br. Med. Jour.,*) has sought to determine the length of time during which pneumonic sputum, when dried by exposure to the air, retains its pathogenic activity. His procedure was as follows: The sputum was collected and dried in a room at the ordinary temperature, some of the sputum being exposed to diffused daylight for a number of days, the rest to direct sunshine for twelve hours. At intervals a little of the sputum was mixed with water and injected subcutaneously into a rabbit. Experiments made with the sputum treated as first described showed that the virulence continued for at least ninteen days, every inoculated rabbit dying within a few days. Indeed, some additional experiments prolonged the period of potency to fifty-five days. Sputum, on the other hand, that had been exposed to direct sunlight for even as long as twelve hours remained equally potent, a fatal result in each case following upon its injection. Clearly pneumonic sputum possesses considerable power of resisting both desiccation and sunlight. Bordoni-Uffreduzzi concludes that not only is it important to destroy the sputa of pneumonic patients, but that the sick-room should be disinfected as after other infectious diseases.

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Treatment of Ringworm.—Kerley (*N. Y. Med. Jour.*), advocates the following methods of treatment. Two grains of bichloride of mercury dissolved in a small quantity of alcohol are added to one ounce of equal parts of kerosene and olive oil. This should be thoroughly rubbed into the diseased areas, and the whole scalp thoroughly saturated once a day, until a smart inflammation is produced; the part should then be covered with a simple ointment until the inflammation has subsided, when the treatment may be resumed, but the applications may be made less frequent and in a less vigorous manner. A variation in the treatment, which he sometimes found useful, was to rub into the diseased areas on alternate days with the above a saturated solution of iodine in absolute alcohol. In all cases the scalp should be frequently washed with soap and water. Slight inflammation of the scalp was induced in most of the cases, and in a considerable number a moderately severe squamous condition of the scalp followed on the cure. This was remedied by the application of a 3 per cent. solution of resorcin frequently. This treatment affects a cure in from six to nine weeks.

SAD LESSON AS TO MENTAL OVERSTRAIN.—The *Times and Register* refers to the sad fate of an eminent medical teacher of Philadelphia: "With deepest regret we learn that the doors of the insane asylum have closed upon him! What an ending for such a life! To the very last no evidence of mental alienation appeared in his lectures or his writings. The habit of a lifetime's assiduous labor carried him along in the well-worn grooves, although outside of them his malady was easily discernible. Hard work, no rest, no Sabbath, no vacation; by such means his powerful intellect carried him to the forefront of his profession; but at last outraged Nature reached her limit of endurance, and the break-down was complete."

Not a few medical men of our acquaintance no longer bear so well the fatigue of a winter's campaign, as they did a year or two ago. The strain, more particularly in the case of city dwellers, has been rendered harder to bear by some undefined malarial "constitution," as our forefathers used to say. Malaise and a propensity to lassitude indicate to the minds of some observers, that many a hard-worked physician may be under the epidemic influence without being sick enough to give up to it. This kind of continuity of effort, or working under protest, has done no little injury. A nervous breaking-up, like that referred to in the above quotation, has not often resulted, but much causeless suffering of a physical nature has been experienced. It is high time now for many of our city fraternity to take a run into the country. They need to invent for themselves "a spring vacation." A longer and a serener future is involved in it, for many.

FOR ACUTE RHEUMATISM.—Most practitioners are satisfied to use the salicylates in all cases of acute rheumatism, but occasionally meet with subjects who are not much benefited by their exhibition. F. de Roy Satterlee, M.D., gives the following (*Ex.*), which will be interesting and useful to our readers who wish for something else than routine salicylic treatment:

℞.—Euonymin, ... gr. $\frac{1}{4}$
Podophyllin, ... gr. $\frac{1}{8}$
Aloin, ... gr. $\frac{1}{8}$

M. Ft. pil. nc. 1. Sig.—Give night and morning as necessary.

Give alkalies till saliva is alkaline. Following is useful combination:

℞.—Lithii benzoatis, ... ʒ ss.
Sod. brom.,
Potas. carb., ... āā ʒ ij.
Potas. acet., ... ℥ jss.
Sodii phos., ... ℥ ss.
Syr. zingib.
Aq. menth. pip., . . . āā ad ℥ vj.

M. Sig.—ʒ ij. to ℥ ss. in water, four to six hours after meals.

For antipyretics use antipyrin gr. x. and digitalis gr. j. combined. For analgesics use phenacetin or antipyrin, and if necessary a combination of morphine, bromide and chloral. Give alkaline mineral waters copiously. Give tonics, the following being excellent:

℞.—Tr. ferri chlor., ... ʒ iv.
Tr. nuc. vom.
Ac. phos. dil., ... āā ʒ ij.
Syr. aurantii cort., ... ℥ j.
Elix. calisayæ, ... q. s. ℥ ij.
M. Sig.—℥ j. in water t. i. d. before meals.

If heart weakens, use following:
℞.—Spts. amm. aromat., ... ℥ iij.
Ammon. carb., ... ʒ j.
Tr. cardamom., ... ℥ j.
Tr. nuc. vom., ... ʒ iij.
M. Sig.—ʒ j. t. i. d.

For topical application use:
℞.—Tr. aconit. rad.
Tr. arnica., ... āā ℥ ss.
Chloroform, ... ℥ j.
Lin. saponis., ... ℥ ij.
M. Sig.—Apply locally.

Exclude nitrogenous foods. Salicylates, baths, and massage are of doubtful value.

CHLORIDE OF SODIUM IN THE SICKNESS OF PREGNANCY.—Dr. Green (*Med. Press*), states that he has recently had two very severe cases of sickness during pregnancy. The first person had been under several physicians, who had tried all kinds of remedies, but nothing stopped the sickness. When seen by the author she was in the seventh month of pregnancy, and very much reduced. Before resorting to the induction of premature labor, it was decided to try the effects of small doses of chloride of sodium—common salt. It was given in five-grain doses in one ounce of chloroform water. After the first dose the sickness was lessened, and by the time six doses had been taken it had entirely ceased. It was found necessary to continue the medicine three times a day up to the time of delivery. The patient had a good labor and made a good recovery. In another case a similar treatment was followed by the same result. The action of this drug seems to be accounted for by its strong antacid properties, for in the case of both patients the secretions were very acid, yet soda, potash, and ammonia gave no benefit. The author suggests that the salt be called by its chemical title when prescribed, as some patients might despise the remedy if given as common salt.

FOR INCONTINENCE OF URINE in children, due to exposure to cold, Prof. Hare recommended the following treatment:

Where the urine is high colored and concentrated, and the child has fever, give:

R.—Tinct, aconit., . . . gtt. xij. to xxiv.
Spirit. etheris nitrosi., fʒ ij. to iv.
Liq. potassii citratis., ad f℥ vj.—M.

Sig.—A dessertspoonful every three hours.

After the urine has become more dilute, belladonna can be given with advantage, to allay the irritation and spasm of the bladder.

Or when the incontinence is due to paralysis of the bladder, give:

R—Extract nucis vomicæ, . . gr. ij.
Acid. arseniosi, ... gr. $\frac{1}{3}$.
M.—Fiant pill. xx.

Sig.—One pill three times a day.

THE removal of the coccyx in operations for the removal of a carcerous rectum, is gaining in favor with Surgeons (*Detroit Emerg. Hosp. Rep.*) The increased facility of action which it gives to the sound parts of the bowel above the seat of the disease, is the great point in its favor. A very neat and efficient operation can be made through a straight incision over the coccyx, terminating in an incision which encircles the anus. If carried deep enough the incision permits the removal of the coccyx and the lower three or four inches of the bowel; easily all that portion of it below the peritoneum. When this wound is healed the patient often has good control over the contents of the bowels.

TREATMENT OF ACUTE BRONCHITIS.—Simple cases usually recover (Dr. Canfield, *Therap. Gaz.*) under the use of a good expectorant mixture, such as:

℞—Ammon. muriat. . . . . . . ℥ss.
Mist. glycyrrhiz, Co. . . . . . ℥iv.

M.—Sig.—Dessertspoonful every three or four hours.

When the secretions are abundant, and not easily coughed up, a turpentine emulsion is excellent. For instance:

℞—Ol. terebinth. . . . . . ʒij to ʒiij.
Muc. acaciæ. . . . . . q. s.
Aq. cinnamon. . . . . . ℥i.
Aquæ, q. s. ad. . . . . . ℥vj.

M.—Sig.—Tablespoonful in water every four hours.

Sometimes the cough is of such an irritating character that expectorant measures avail little. Some narcotic must then be used. Codeine has not the disadvantages of morphine, and is efficient. A good combination is:

℞—Codeine sulphat. . . . . . gr. viij.
Syr. prun. virgin. . . . . . ℥viij.

M.—Sig.—Tablespoonful in water three or four times per day, and at bed-time if necessary

GRATITUDE.—A physician in this vicinity (*Boston Med. and Surg. Jour.*), was recently called to a family which he found in such destitute circumstances that he gave, in addition to his prescription, a five dollar bill. Happening in the next day, he discovered that his gift had been thus spent: three dollars to the priest, and two dollars to get another doctor.

MENORRHAGIA.—E. E. Philips (*Med. Summary*).

℞.—Tinct. canabis indica, ... gtt. xxx.
Mucilage
Spts. chloroform, āā . . . . ʒ i.
Aquæ, ad., ... ℥ ij.

M. Sig.—Take a tablespoonful every three hours. A few doses are sufficient.

APPOINTMENTS.—The following gentlemen have been appointed as assistant resident physicians to the Toronto General Hospital for the year 1892-93:—Anderson, A. B., Parsons, H. C., Fenton, F., Tilley, N. S., Middleboro', Bruce, H. A., Brown, J. N. E., Way, H. J.

BLACK SNAKEROOT FOR DYSMENORRHEA AND OVARIAN IRRITATION.—From the results obtained in a series of cases, James Brunton (*Practitioner*), concludes that *actea racemosa* (black snakeroot), possesses anodyne properties, and may, with advantage, take the place of bromides and opiates for the pain of dysmenorrhea. In addition, the drug has a direct action on the uterus, increasing the menstrual flow when scanty. It is best administered in doses of thirty minims, thrice daily, beginning three days before and continuing throughout the period. It is sometimes useful in menorrhagia and metrorrhagia. Its action is almost specific when there are ovarian pain and nervous depression.

ALCOHOLIC INJECTIONS FOR CANCER.—Dr. Shultz (*Med. Rec.*) of Buda-Pesth, reports ten cases of uterine cancer in which the disease was arrested by injections of alcohol. The patient is placed in Sims' position, a Sims speculum is introduced, and the meatus urinarius is guarded with wool lest it should be hurt by drops of alcohol falling on it. An instrument about five times the size of a hypodermic syringe, but otherwise similiar, is employed. Five cubic centimetres of absolute alcohol are thrown up. The needle of the syringe should be passed about an inch into the cancerous tissues. This causes some pain, which, however, does not last long. The injections may be made daily or every other day, and the vagina should be packed with a strip of iodoform gauze after every injection. After about thirty applications of the syringe the cancerous tissue, in the cases under Dr. Schultz's treatment, almost disappeared, and epithelium grew over the eroded surface of the disease. How long this condition will last, observes Dr. Schultz at the end of one of his clinical reports, the future will show.

APOLOGY.—An article which appeared in the May number on Angina Pectoris, should have been credited to the *Medical News*. The error was unintentional on our part.

BRITISH DIPLOMA.—We notice that Dr. J. H. Cummings (Trin.), has recently passed the L. R. C. P. Lond. examination.

Books and Pamphlets.

THE SCIENCE AND ART OF MIDWIFERY. By Wm. Thompson Lusk, A.M., M.D., Professor of Obstetrics and the Diseases of Women and Children, in the Bellevue Hospital Medical College; Consulting Physician to the Maternity Hospital; Fellow of the Edinburgh and London Obstetrical Societies, etc. New edition, revised and enlarged, with numerous illustrations. New York: D. Appleton & Co.

The fourth edition of this work will, no doubt, be most favorably received by the profession. In the brief interval that has elapsed since the publication of the 3rd edition, the changes that have taken place in both the theory and practice of obstetrics have made it necessary for the author to present to the profession what is essentially a new book. Thus, many modifications in the theory have resulted from more careful observation in anatomy and pathology, and from fruitful physiological investigations. The author has interwoven aseptic precautions with all branches of obstetric art, without, however, insisting upon pedantic measures, which experience has shown to be needless. The chapter on Eclampsia, and those on the Diseases of Childbed, are especially good. No expense has been spared in the publication of this work, and few, if any, could be found with better plates and illustrations. It cannot be doubted but that this treatise on which the author has spared no pains, will have anything else than a flattering welcome by the profession.

DISEASES OF THE NERVOUS SYSTEM. By J. A. Ormerod, M.D., Oxon., F.R.C.P., London, Physician to the National Hospital for the Paralyzed and Epileptic, London, etc., etc. With numerous illustrations. Philadelphia: P. Blakiston, Son & Co. Toronto: Carveth & Co. 1892.

This work of 342 pages, by a recognized authority and lecturer on nervous diseases, is presented as an introduction to the larger treatises on diseases of the nervous system. It will be useful to the beginner, and to the general practitioner, as a foundation, complete in itself and yet concise, upon which he can either rest or go on to the erection of a superstructure of more elaborate knowledge of this most intricate, and, approached through the pages of the more pretentious works, often discouraging study.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

Original Communications.

OPERATION FOR THE RADICAL CURE OF HERNIA.*

BY THOMAS R. DUPUIS, M.D., M.R.C.S., ENG.

Professor of Clinical Surgery in the Medical Faculty of Queen's University, Kingston.

It affords me unfeigned satisfaction to meet again with the members of the Ontario Medical Association, to enter into their discussions, and to contribute my little towards the success of this meeting, and the improvement of that branch of medical science, which, as a teacher of clinical surgery, more immediately concerns myself. Many years have elapsed since I first enrolled myself as a member of this society, and many whom I met here at the meetings of years gone by, have passed to the "great beyond," where meeting and parting are no more. But while the members come and go like the sunshine and the shade, the society moves on, like the cycles of the years, and each one of its birthdays finds it larger and stronger, and more fully developed than it was at any previous birthday.

But the profession has its "fads," as well as the dudes and the ladies have, and every one of these must triumph in its turn, for a short period. Sometimes it is one thing and sometimes another that comes to the top, and is carried to an extreme. Listerism stands out foremost; it filled the desire of men's minds until the great truths were evolved from it, that the most extreme cleanliness, and the proper application of germicidal substances are the foundation and superstructure of all antiseptic surgery. Vegetable, animal and chemical substances are brought forward and tested, and each one of them for a time secures an ephemeral reputation; and out of them all but a very few ever take their places as reliable remedial agents. Operations upon the uterus have been almost a craze for several years past, and trachelorrhaphy, so much so, that the gentleman whose name it bears has had to rise up and assert that this operation is being practised to an injurious extent, and in many cases being needlessly performed. Abdominal surgery is just now in the ascendant, and to be able to report one case of successful enterectomy, elicits more applause than raising a score of sick persons from almost a dying bed, or bringing to perfection some method of operating for the relief of daily suffering, or the prolongation of life. In view of such facts one feels like saying as the Great Teacher did, "These ought ye to have done and not to have left the other undone."

However, in looking over the subjects placed upon the programme for discussion, I was pleased with the exceedingly important and practical nature of the subjects announced. They are such that every physician and surgeon must say of them, "a little more scientific light upon them would be gladly welcomed"; and they are such that a more minute acquaintance with the mysteries of each, would redound to the credit of the practitioner and the benefit of the patients. Scientific investigation, practicality, and common sense, are as urgently needed in the vast domain of the healing art as in any other of the great and varied subjects that occupy the attention of mankind.

In fullest sympathy with the utilitarian character of this meeting and with the efforts being made to disseminate widely, amongst the many, a knowledge of every improvement or discovery which any one of its members may have made, permit me to notice for a brief period, my experience with "Operations for the Radical Cure of Hernia."

This is one of the operations which in some form or other has been practised for many years. Herniæ are very common and cause a great deal of suffering to their subjects; hence the desire of men in all ages, has been to be permanently cured of them. The most crude and dangerous methods have not infrequently been put forward as means of radical cure, because operations carefully performed, requiring much time and much cutting, could not be undertaken in the past. Of late years, however, since anæsthesia and antisepsis, have watched as guardian goddesses over the pains and dangers of surgical operations, it has been possible to undertake lengthened and extensive sections and re-adjustments of parts for the cure of herniæ, as well as for other affections which would have been reprehensible in the extreme before these two almost divine agents came to our aid. Although my experience in operations for radical cure is not, and cannot be, as extensive as that of many others, yet, it seems to me, but right to record it. Very few men in any age can say, like Sir Henry Thompson, "I have now completed one thousand operations for stone in the bladder." Or like the late Mr. John Wood, of London, who could give the results of 400 operations for hernia. Nevertheless, if each one of us records his operations—his successes and his failures—we may in a short time build up a collective experience which will give to "this Canada of ours," a name and a place in the medical and surgical literature of the world.

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* Read before the Ont. Med. Assoc'n, Toronto, June, '92.

To-day, I shall give the results of three cases operated on by myself, and one operated on by a medical friend, whom I assisted, and they were all that could be desired, there being no bad symptoms after the operations; healing taking place in a short time, and no return of the hernia up to the present period.

In looking over the literature of this subject one finds that many plans have been recommended by various surgeons, the statistics of some of which are not very encouraging. Injections into the inguinal canal of substances more or less irritating, such as decoction of oak bark, tannin and glycerine, alcohol, tincture of iodine, etc., have the sanction of men of ability and experience, such as Keetly, Pancoast and Velpeau; but published statistics have not been sufficiently gratifying to give this method of cure a permanent place amongst the surgical operations for hernia. The object aimed at in this operation is to set up a sufficient amount of inflammation to throw out enough plastic material to effectually plug up the opening, and adhering to the sides of it, to bridge it over by a resisting layer of organized tissue. Sometimes the inflammatory action may fall short of accomplishing its purpose; sometimes it may go too far, and not only do permanent injury to all the parts concerned, but may endanger and even destroy the life of the patient. It cannot, therefore, be looked upon as a commendable operation Other plans, such as exposure of the sac, ligation of its neck, excision of the protruding portion, incisions made into it and irritating substances applied to it, for the purpose of exciting adhesive inflammation, and, in scrotal herniæ, the removal of the sac and testicle, have all been practised with more or less success. Removal of the testicle on the affected side, for the purpose of rendering the pressure of a truss more tolerable, was suggested by myself in my thesis written thirty-two years ago the present spring, and I still think that in certain cases this procedure would be advantageous either for the wearing of a truss or for a radical cure of the hernia.

Subcutaneous scarification of the neck of the sac, followed by the pressure of a truss, was proposed and carried out by Guèrin, but, as a curative measure, the operation is almost useless. Gerdy's operation, which consists in invaginating the skin into the inguinal canal, fastening it there by a couple of strong sutures passed through the apex of the invaginated structures and tied over a piece of bougie on the front of the groin, and the denuding of the invaginated portion of skin of its cuticle by strong liquor ammoniæ, has, on account of the ease with which it could be performed, and the *prima faciæ* promise of cure it held out, been practised a number of times; but on account of accidents and failures it has not held its place, and is now seldom or never practised.

In 1836, Bonnet, of Lyons, proposed and carried out a system of acupuncturation, consisting of a number of pins so passed through the skin and fascia as to transfix the hernial sac (it first having been emptied of its contents) and the adjoining structures at several different points, leaving the pins there until ulceration of the skin began, then withdrawing them and using gentle pressure to secure adhesion of parts. Eleven operations, two deaths, five failures, and only four cures, did not warrant this method worthy of perpetuation.

Various modifications of Gerdy's plan of invagination have been proposed by different operators, and several very ingenious instruments have been devised for the purpose of perfecting the radical cure of hernia by invagination and fixation of the invaginated tissues. The instruments of Wutzer, of Bonn, and Agnew, of Philadelphia, are certainly the most practical.

None of the methods of invagination seem to succeed in effecting a radical cure to the extent desired by both patients and surgeons, and hence this principle of curing a hernia has, as far as I can learn, fallen into well-merited neglect.

Sewing the pillars of the ring together and closing the whole canal is certainly the best method of procedure, and the one that offers any reasonable hope of a radical cure. Several contrivances have been introduced to do this subcutaneously, and some good work has been done in this direction. Mr. Dunnett Spanton, of Leeds or Liverpool, I forget which, some years ago described in the medical journals an instrument shaped somewhat like a corkscrew, with which he united the sides of the canal over his finger invaginated with the integuments into the canal. This found favor for a short time, but now we hear no more of it. The plan carried out by the late Mr. John Wood, of London, England, and used by him for about thirty years, has so far given the best results of any operation extensively practised, both as regards the fewness of deaths and the number of permanent cures. He performed in all nearly four hundred operations, two hundred and twenty consecutively, without a single death, and only two deaths after he had done two hundred and forty. He thinks his successful cases, as to cure, must have been about seventy-five per cent. This operation of Mr. John Wood's is not difficult to perform, is partially subcutaneous, and has, undoubtedly, given very fair results; but although it is not difficult to perform, practised manipulation and experience are required for its performance and in selecting the cases favorable for it, and likely to give good results. Mr. Wood himself attributes his better success in his latter cases to his increased expertness from much experience. His words are: "Something considerable, too, must be allowed for improved manipulation and dexterity in operating, in the later cases, and for matured judgment and experience." I need not detail Prof. Wood's method, as it is well known.

More than 20 years ago, however, Prof. S. D. Gross, of Philadelphia, used the following words: "The most rational radical treatment of hernia is undoubtedly the *direct*, as it may be termed, consisting in cutting down upon the parts, refreshing the edges of the opening of descent, and approximating them with wire sutures, either permanently retained, or until complete consolidation has been effected." Although he had performed this operation only twice, he was so pleased with it that he recommended it to others. "The proceeding," he says, "is easy of execution, and does not, if the system has been properly prepared by rest, abstinence and other means, involve any particular danger." He further says, "It will, if properly executed, be much more likely to answer the purpose, than the process of invagination now so much in vogue, and, for the most part, so worthless."

It is well for us to remember also, that these words were written before Listerism and animal ligatures had given their mighty impetus to the surgery of previously inviolable parts, and ere laparotomy had taken its place amongst common operations, and proved itself to be as free from danger as the amputation of an arm or a leg.

A direct closure of the canal by cutting down upon it, paring and properly stitching its sides together, has, with some modifications, been practised by Professors Annandale, of Edinburgh, Stokes, of Dublin, Mr. Banks, of Liverpool, Sir Wm. McCormack, of London, Tillanus, of Amsterdam, M. Reverdin, of Geneva, and last, but by no means least, Dr. O. Marcy, of Boston, U. S. These surgeons have all done noble work in the matter of improving the operations for the radical cure of hernia; and we trow that with these eminent examples before us, and with our own Canadian efforts, on the same lines, directed towards continual improvement in this branch of surgery, aided by anæsthesia, Listerism and animal ligatures, perfection will soon be reached, and a neglected and uncured hernia will be as reprehensible, and as uncommon, as a gaping harelip or an unreduced dislocation.

The first case on which I operated in this direct manner was a young girl on whom the hernia had descended and become strangulated. Strangulation had persisted for about 24 hours, when I was summoned to it, the taxis had failed to return the parts, and nothing short of an operation for strangulated hernia offered any chance of relief. I proceeded to operate in the usual manner for ingunial hernia, but after having reached the sac and enlarged the internal ring, I found indications of adhesions within the sac and thought better to open it. There were adhesions between a portion of the omentum and the interior of the sac; these were relieved and the bowel returned, after having been first gently laved with a warm antiseptic solution of Hg. Cl.$_2$ to aq. 3000. The whole wound was dried by means of a soft sponge squeezed out of the same antiseptic fluid; the peritoneum (sac) was united where it had been opened, by fine sutures and returned the superficial wound was enlarged so that the whole extent of the separate tendons could be reached, the opposite sides of the canal were drawn together by sutures and the fascia and skin brought together by both deep and superficial sutures. Bichloride antiseptic dressings were applied, quietness maintained, and the usual care following an operation for strangulated hernia observed. The patient was young and healthy, so that healing was very soon completed without the advent of one single untoward symptom. I may add that to insure perfect quietness, which I consider of the first importance, I kept my patient pretty well under the influence of morphine all the time, for about four days, when I lightened up on the quantity given. This operation was in the country, seven miles from home, and I had with me neither catgut or silver wire and could not get either of them in time, and hence was compelled to use the best suture material I had with me, which was iron-dyed silk thread. This patient was operated on in December, 1889; for about a year and a half I received favorable reports from her condition, but since that time I have lost sight of the patient entirely, on account of removal to some other part of the country.

(*To be Continued.*)

MORPHIA IN PUERPERAL ECLAMPSIA.

BY R. LAWRENCE, M.D., HONEYWOOD, ONT.

On the 20th of January, 1892, I was called to attend Mrs. McC. who was in labor with her second child. She had given birth to her first, a premature still-born child some eighteen months before, in Midland city. She informed me that she had puerperal convulsions before its birth, but I am not conversant with any of the facts.

I found her urine albuminous and her feet and ankles much swollen, also an elevated temperature. After an ordinary labor the child, a fine boy, was born at two o'clock p.m. During her labor and after it was over she complained of a severe headache. I gave her a dose of acetanilid, camphor monobromate, and citrate of caffein, and left a few doses to be given every three hours.

The following morning at 3 o'clock she was seized with a severe convulsion. I was sent for and shortly after my arrival she had the second one. As soon as she was able to swallow, I gave her ⅞ of a grain of sulph. morphia by the mouth. I intended to have given her the grain at a dose, but felt timid, as this was the first time I had given so large a dose, and consequently gave only ⅞ of a grain. In an hour the pupils began to contract, and in an hour and a half she slept. Her temperature which from the time of her labor up till now had remained high fell to below 100. She would start up every hour or two, but after taking a drink she would fall asleep again. She continued to do so for about twenty-four hours, getting more conscious all the time.

No more convulsions after the large dose of morphia. On the 22nd there was no swelling in the extremities, no albumen in the water and no elevated temperature.

On the 29th April, '92, I was called to see Mrs. F. I found her about five months pregnant with her first child; some pain in the abdominal and epigastric regions, but no contraction of the uterus. Face flushed, headache, rapid pulse, elevated temperature, and occasionally muscular twitchings. After a large warm water enema I gave her a ¼ grain of morphia, and left some to be given every six hours. I left also a few doses of acetanilid, camphor monobromate, and citrate of caffein to be given every three hours. Six hours after I was sent for, with the information that she had had a convulsion. Just as I got into the bedroom she went into the second fit. They had given her just before ¼ grain of morphia. I gave her as soon as she could swallow ¾ of a grain more, making a grain of sulphate of morphia inside of fifteen minutes. She had no more convulsions. In about an hour the pupils contracted, and in an hour and a half she fell asleep. She slept all night, but would open her eyes and look about, answer questions, take a drink and fall asleep again. Next day her temperature was normal, she was drowsy most of the day but regained her memory towards night. She kept her bed for about two days, after which she did light work in the house. I decided not to interfere with the fœtus. On may 21st I was again sent for and found her in labor. She gave birth to a dead child with a hydrocephalic head. She had no symptoms of eclampsia during her labor, and by using the antiseptic injections per vaginam she made a rapid recovery although the child had been dead some days.

I agree with Dr. Bertram Spencer, see Canada Lancet, May 1892, that we must "narcotize the patient," but I think his ½ grain doses of morphia only partially does the work. One grain of morphia to a woman suffering from puerperal eclampsia is not, I think, too large a dose if she is an ordinary healthy person.

BACTERIOLOGICAL NOTES.

BY E. B. SHUTTLEWORTH, TORONTO.

Influence of Saliva on Pathogenic Micro-organisms—Sanarelli (*Centralbl. f. Bakt. W. Paras.*, in *Brit. Med. Jour. Epit.*) finds human saliva to possess a bactericidal influence on several micro-organisms, but that its power depends on the number present. It is ineffectual against a large invasion, but a limited number of bacteria may be destroyed by being introduced into it. Of the species so affected may be enumerated, *staphylococcus aureus, streptococcus pyogenes, micrococcus tetragenus*, and the typhoid and comma bacilli. It is stated that *bacillus diphtheriæ* ceased to thrive in human sputum, and that the virulence of *pneumococcus lanceolatus* (Friedlander) was thus lost. Although Sanarelli's experiments assert the toxic power of saliva over these organisms, it must not be forgotten that it is a question of proportion between saliva and bacteria. That the injection of a very small portion of human sputum containing some of these organisms—Friedlander's bacillus for example—will produce fatal effects in other animals is an experiment with which every student of bacteriology is familiar.

New Method for Staining Bacillus Tuberculosis—P. Kaufmann (*London Lancet*) gives a process in which the employment of acid as a decolorizer is avoided, the effect being obtained by the use of hot water. Sputum is dried on the cover, fixed, and stained in Ziehl's carbol-fuchsin solution, in the usual manner. It is then placed for about three minutes in water at 208° to 212° F., the cover being moved about until visible color is removed. It may now be examined and will present the same appearance as if treated with any of the acid decolorizers. A contrast stain—say methylene blue—may be applied, if desirable. This method may have an advantage in the preparation of permanent specimens.

Differentiation by Staining in the Examination of Urine—Dr. Charles Rice (*Am. Druggist*) says that he has received much assistance in the examination of certain fluids, especially urine, in the recognition and differentiation of various objects subjected to microscopical examination. As every one knows there is considerable difficulty in viewing a more or less transparent liquid, and it is only by a skilful manipulation of the light that colorless bodies can be distinguished. He takes advantage of the fact that many aniline colors have the property of dyeing vegetable or animal tissues, without mordants. The addition of one aniline color to urine will have the effect of coloring all organic structural material, such as epithelial cells, casts, bacteria, etc., while inorganic material, as urates, uric acid, phosphates, calcium oxalate, and the like will remain unstained. Of the various anilines tried Dr. Rice prefers a mixture of equal parts of "Hoffmann's violet, 4 B," and "brilliant green," dissolved in water—say two grains of each to the fluid ounce. Sufficient of this may be used to tint the urine. Experience will soon show the proportion best suited to the observer, or the material under examination.

Labelling Slides directly on the glass—The *Phar. Jour. and Trans.* contains an item to the effect that Professor Penhallow, of Montreal, has sent to the Royal Microscopical Society some slides illustrating his method of labelling. He writes directly on the glass, and, when dry, covers the writing with a protective coating of a very thin solution of Canada balsam, which would preferably be made by dissolving baked balsam in chloroform or benzole.

Bacillus Typhi Murium for the destruction of Field Mice—Professor Loeffler's expedition against the field mice of Greece has proved very successful, the enemy being reported as annihilated, after a nine day's engagement. Peasants residing in Thessaly, in which crops were being destroyed, were requested to bring baskets of bread for infection. This was then distributed over the fields, and proved most effectual. The prejudices of the farmers against the baccillus were, it is said, removed on seeing Professor Loeffler and his assistants eating portions of the infected bread, some of which was also given to cattle without producing any serious result. The specific name of the bacillus indicates the character of the organism, and should have been sufficient to have prevented the mistakes into which several medical journals have fallen in asserting that Prof. Loeffler's experiments were made with the bacillus of typhus fever. The organism produces in field mice, and such like animals, a kind of enteric fever, but the higher animals are unaffected.

Reports of Societies.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

ANNUAL MEETING OF THE MEDICAL COUNCIL.

SECOND DAY.

Wednesday, June 15th, 1892, 10 a.m.

The Medical Council met in accordance with motion for adjournment, the President in the chair called the Council to order. The Registrar called the roll. All present except Sir James Grant.

The minutes of the last meeting were read and confirmed.

Dr. Geikie tenders his resignation as a member of the Printing Committee, and also tenders his resignation as a member of the Property Committee, which was accepted in both cases.

Notices of Motion.

No. 1—Dr. Williams *re* the appointment of a committee to consider the advisability of consolidating and amending the Medical Act.

No. 3—Dr. Miller *re* amending Sec. 3 of the Medical Curriculum.

No. 4—Dr. Harris *re* dispensing with publication in future of students' lists in the Annual Announcement of the College.

Communications.

The Registrar read communications from Dr. Shallette of Quebec regarding reciprocal registration between Ontario and Quebec. Referred to Education Committee. Also communication from Drs. Reeve, G. S. Ryerson, Herbert Burnham and Charles Trow asking that a certain number of lectures be demanded from students upon the subjects of ophthalmology and otology. Referred to Education Committee.

Motions of which notice had been given at Previous Meeting.

Moved by Dr. Moore, seconded by Dr. Britton that the word "November be substituted for the word July" in paragraph 1 of regulations of 1891 and 1892, as appears on page 12, referring to matriculation, and in support of his motion he said: This is a little addition that I have made to my notice of motion yesterday; it doesn't affect it in any way except in probably rendering a little more clear the second part of this paragraph. The reason that I make this motion is that whereas our rules say it shall not come into effect for one year it is a fact that one year will have elapsed at the end of this month; since this has been passed there has been no opportunity for any students going up for this departmental matriculation after they had due notice because it was only in October last this announcement came into the hands of the profession, the hands of students, the hands of colleges and the hands of high schools and collegiate institutes, therefore that would be the first official notice they would have of this change; and I hold that is not giving them a clear year's notice; and they have had no opportunity of going up for the second-class non-professional examination, or even the matriculation in Arts, as that examination was held in July last and will not be held again till about the 11th July next. I think it is only fair to the students and teaching bodies that the word "November" should be substituted for the word "July." I find that a good many medical men and students, and even some of the professors of the colleges seem to not just understand what we mean by the wording of this "with the prescribed science course added and compulsory." I presume still that a man's mind will be better prepared for the study of medicine who has taken the science course, than a man who has a knowledge of French and German. I wanted to make it plain and therefore I have worded it as I have, that they shall take the departmental art matriculation examination, etc., that they must take the science course, no matter whether they take French, German and Greek; we allow no options at all.

Dr. Geikie—May I ask do you mean that persons between July and November shall have taken the science course.

Dr. Moore—No; but that the matriculation in science and arts shall be compulsory.

Dr. Britton—That does not change the matter one particle, it makes more apparent what is intended. At present the Education Department, regarding these examinations to some extent are in a transition state. I have seen lately a pamphlet by J. Seath, B.A., Inspector of High Schools; in that he takes the ground that it would be advisable to raise the standard still higher. From some remarks that have been let fall from prominent educationalists I feel satisfied that in the near future there will be some changes made in the educational department which will still further raise the standard of their departmental art matriculation examination. At present we have the second class non-professional examination and we know what that standard is, and I think we may be well satisfied with that until the fall of the year when these further changes will probably have taken place.

Dr. Geikie—I support the motion strongly on the ground of the notice having been too short. It would be a concession to an almost universal demand to have the time enlarged to November.

Dr. Harris—Inasmuch as there are some petitions from students to have this time extended and we have to deal with that matter any way in the Educational Committee, I think it would be better to have it go before that committee.

Dr. Bergin—My objections to this resolution are two or three. In the first place the resolution is not in accordance with the notice of motion; it goes very far beyond it. In the next place the mover says it does not alter the clause of our curriculum a particle. The seconder says the same thing. If it makes no alteration then there is no necessity for this resolution and we will leave things as they are. I don't think we ought to commence tinkering in this way with what we succeeded after hard work last year in pretty nearly perfecting. I think it is quite right to extend the time until November, but I object to any motion being put before the Council that is not in accordance with the notice of motion; it looks like springing upon the Council a motion which I confess I would not have understood from merely listening to the reading of it by the mover; and again it is in direct contradiction to the rule of the Council which relegates all such matters to the Education Committee. I don't think you can put this motion at all in its present state.

Dr. Williams—As a rule we take up alterations in the announcement before the Education Committee. Notice of motion to make any alteration has usually been referred to that committee and considered by that committee, the members of which can take more time and look into the matter more carefully than it is possible to do here before the Council. I don't see any good reason why in this we should depart from the ordinary rule; and I believe it can be more effectually and more carefully done there. At present I see no reason why the motion that Dr. Moore suggests should not first come before the committee, and when the committee are dealing with the announcement let it be carefully considered.

Dr. Moore consenting, the motion was referred to the Education Committee.

Moved by Dr. Harris seconded by Dr. Johnson to introduce a resolution to the effect that examiners need not be in the examination hall during the examinations on written papers.

Dr. Britton—Might I ask whether you would be willing to add a rider to that motion, that only one examiner be required to be present at oral examinations; at present, according to regulations, it is not necessary that two should be present, and I have been told by some examiners that it is apparently a waste of time and money to have a second examiner present, because he has really nothing to do.

Dr. Harris—I think it won't be necessary to add that. I will bear it in mind and bring it before the committee.

Dr. Geikie—I might say it has been found very nice to have two examiners present, as it relieves the examiners themselves of a good deal of difficulty and embarrassment. Sometimes I know that having two present is very awkward, but at the same time the benefits more than counterbalance the difficulties. Motion referred to Education Committee.

Moved by Dr. Bray, seconded by Dr. Johnson, that Alex Downey, C.S.R., be appointed official stenographer to report the whole proceedings of the Council during the present session.

Dr. Fulton asks what the cost of reporting the proceedings at the last session of the Council was.

Dr. Pyne informs the meeting that it was less than $80.

Dr. Miller asks what the cost of reporting the whole proceedings of the present session of the Council will be.

Dr. Bray—In view of the dissatisfaction that seems to exist between the general profession and this Council, and for the reason that heretofore we have never had anything of the kind, and that the profession has been in the dark as to what this Council has done, I think the money would be well spent; if for nothing else it will put the business of this Council before every practitioner in the Province. I think if that had been done years ago there would be none of the agitation that there is at all; it is for that reason I make my motion. This will be certainly a valuable communication between the profession and this Council; and I would strongly urge that resolution, and I hope that I will have the support of the Council.

Dr. Miller asks if there is any provision made for the distribution of the announcement to members of the profession throughout the Province.

Dr. Bergin states that there was a resolution passed some years ago that every registered practitioner who paid his fees should receive a copy of the announcement, and that resolution stands to-day.

Dr. Miller—We stand in a different relation to the members of the profession throughout the Province with relation to the collection of fees; we are in a position now to collect the fees, and being in a position to collect the fees I think we should certainly defer to the universal opinion, and I think the correct opinion, that the members of the profession should be in full possession of all matters transacted at this Council Board. I think it is in the interest of the Council, as well as a right which the profession can demand from us. I did intend to give notice of motion, but preferred asking this question first, that in the future all papers referring to transactions of this Council be sent to every registered member of the profession in the Province of Ontario. I intended giving a notice of motion, but I thought probably I had better ask, being a new member, whether the resolution passed at the last session of the Council referred to this and to future meetings of the Council.

Dr. Logan—While I agree with the object of the last speaker had in view I think at the same time, we ought not to engage in this matter in a blind way; we ought to have some approximate idea of the expense of the matter. We are blamed frequently for incurring unnecessary expense, and I think at all events we ought to, and can, get something like an approximate idea of what this is going to cost us. I am quite in favor of it, but at the same time I would like to know what it is going to cost.

Dr. Thorburn—The motion is an excellent one; if we want proof of that we have only to look at the morning papers. A leading journal informs the public of the country that the Medical Association met yesterday. Where our proceedings are ignored in that way, naturally it is only by the publication of our own reports we can expect the profession to know anything about it; when the public press make such a mistake as to confound this body with a general gathering of the profession, I think it is quite time we should identify ourselves.

Dr. Day—I don't fall in with Dr. Bray's statement that this Council have not allowed the profession to know what is going on. I think any member of the profession who took our announcement for the last ten years and followed it, could inform himself of what was going on.

Dr. Bray—I did not mean that.

Dr. Day—As to not being reported in the public press, as Dr. Thorbuen complains of, we have not been reported in the public press, but meeting in Toronto accounts for that; if we had met somewhere else in an intelligent community that took an interest in the profession, we should have been well reported; and it leads me to regret that we have spent so much money in Toronto, when we might have met in places where we would be recognized as somebody. We have tied ourselves here with $100,000 and they can treat us with contempt. If we were free to meet where we liked, we would be well reported, but as we meet in Toronto, which rules the universe, we are not.

Dr. Philip—I think with Dr. Logan, that we should not go into this matter without knowing something about the cost; I would like to know what the publication of the report cost last year, because that will give us something to guide us as to the probable cost.

Dr. Pyne states that the publication of the whole announcement cost $144, in addition to the stenographers's charges for the report of the proceedings taken by him.

Dr. Williams—I can't see that the Council is to blame in this matter of publication at all; as I mentioned yesterday, when speaking, the public press can hardly be expected to devote any large amount of space to the Medical Council. That they might devote some reasonable amount, as a matter of general news, we might expect; but the Council itself I do not think is materially to blame at all. They have felt for years the difficulty of being properly or fully reported to the profession, and the profession have not been receiving the information they ought to receive. For two or three years, and I don't know but more than that, pains have been taken to publish the minutes of the Council pretty extensively in the annual announcement, and there has been no special limitation to the number of announcements that should be sent. It is true it has not been practicable to get those into the hands of every medical man, but there was a reason for that. If you look up our register you will find it shows something like 2,600 names, at least five or six hundred of those not being in practice in the country at all; now we have got down to a solid basis and know about how many we have, and when we have the means of perfecting our register that we know we have now about 2,148 names and we can send one to each one of those individuals without any great trouble. Before, we were largely in the dark, and when we sent them out we didn't know whether the man was there or not, I think the Council is not materially to blame for the state of affairs in the past, and there is no good reason whatever, why, when the register is so perfected that each man shall not receive an announcement. The very fact that he is on the register from this time forward, will be proof, at least that he has kept his fees in such a way that he is still a member of the College of Physicians and Surgeons. Now, if he does that, he is unquestionably entitled to get a copy of the announcement, and whatever other papers the profession or the Council may have to send out. And, I certainly think, there should be no two opinions as to the announcement going to each man whose name is found on the register, after the present arrangement is complete.

Dr. Bray—Allow me to correct a wrong impression that seems to have got abroad. I did not intend, if I so expressed myself, that we were keeping the profession in the dark. Far from it. I think the Council have done their best, but I agree with Dr. Day, that we have been treated very shabbily indeed. If you take up this morning's paper or any paper, if there is a conference or a horse show, you will find four or five columns devoted to it. In the *Empire* to-day there is not a word of the Medical Council; and in another paper they speak of our meeting as that of the Medical Association, giving a wrong impression to the public. I think it is a duty we owe to ourselves to have a regular reporter of our own and to have a report to go to the profession; if these papers do not chose to give us any space we will have to do without it and have to make provision otherwise. I blame the Council in no way, and I wish to say that in my remarks, I did not mean to convey any impression of that kind.

Dr. Moore—I am very much in favor of employing a stenographer; I think it is the only way we have now of getting our views and our work before the medical profession. We can't expect, as Dr. Williams put it, that the public press is going to pay a great deal of attention to us, no matter how learned we may be or how big we may feel ourselves; there are only 2,148 of us altogether, and the public are not so much interested in the profession as they ought to be, I think. And when our own medical journals do not see fit to publish but a very, very meagre report, of the proceeding of this Council, what can we expect from the public press? If we give a record of the proceedings of the Council to every member of the profession who pays his fees and who is legally on the register, I think we would not be doing our duty either to ourselves or to our profession if we did not give this full report.

Dr. Rosebrugh—I quite agree with all that has been said in this direction. I believe that in references to conferences, such as have been spoken of, they invariably appoint a reporter of their own, and he writes out a report and sends it to the papers; it may be worth while for our stenographer to make out a report and hand it to the newspapers, and I think they would have no objection to publishing it, if they were furnished with it.

Dr. Johnson—In seconding that motion I may say, as representing a very large number in the profession, this division, I suppose, having the greatest percentage of members of the profession of any division; I had spoken to Dr. Bray about this resolution, before it came up, but I was unfortunately out of the room when he very kindly gave the notice that laid upon my table. I am very happy to second that resolution. It has been frequently told me that there is a feeling throughout the country that the profession are not sufficiently informed of what we are doing. We all know that for years, the general feeling in the country has been, that the Council meet together and do something; and perhaps enjoy themselves; and that they thought themselves the leaders of the profession and there the matter ended; that the profession did not get any good from the meetings of the Council. Lately, in the difficulty that has existed, which we all know about, very frequently members from the country, even up to the present day, are surprised at what we have been doing; they know nothing, or they have never heard or seen anything that has been going on in the Council. Last year I spoke on this subject with a view of having the report which we now have in print, got into that form. I then spoke strongly in favor of having these proceedings reported in full; and in that way last year, having that report brought out, I have not a doubt that a great many men in the country do know now, more about what the Council is doing than they did before.

On a vote being taken the motion was declared carried.

Moved by Dr. Britton, seconded by Dr. Thorburn, that paragraph 12, page 17, of the annual announcement be eliminated, and the following inserted: "A professional examination will be held in Toronto on the second Tuesday in September, 1892. Students who have failed in the former examination are to pay a fee of seventy dollars for this examination; and the next professional examinations will be held in Toronto and Kingston, on the second Tuesday in April, 1893."

In speaking for this motion, I wish to say, that I have before me a number of petitions which were presented to this Council last year; and I believe these petitions were signed by some three or four hundred students from all the different medical schools; and though they are not uniform as to their wording, the main idea of the petition running through all of them is the same; and that is to have the examinations to take place in the spring of the year and not in September. It would be very embarrassing for the students, it would interfere very much with any recreation or relief they might have from work during the summer; and would necessitate their going to work in their next session's course immediately after having passed an examination, which would be an unfair thing to do. I believe that we feel like maintaining a friendly spirit towards the students; they are our friends; we expect them to be part of our important body after a time; and I have had interviews with several of the students who have taken an active part in the matter and they have felt the imposition, if I may use the expression, —they call it imposition from their stand point,—very much.

I was placed in a very embarrassing position last year; I was asked to be present at one of the public dinners, given by a medical school and when the dinner was about half over, I was informed by a gentleman present, that the Council was in hot water, and so deeply in hot water, that they dared not follow the usual custom of putting on the toast list the College of Physicians and Surgeons of Ontario. Several times later in the evening, when the College of Physicians and Surgeons was referred to, there were replies made and gestures shown by the students that were not reassuring to myself and that almost upset my digestion; later on in the evening I was given an opportunity of saying a word for the College of Physicians and Surgeons, and before we disbanded I thought the students and the College of Physicians and Surgeons were on very much better terms. I may say I suggested to them putting in some tangible form before us an expression of their views in the matter. I told them the chief reason why we had a September examination and not a spring examination was because we had been informed by some of the leading medical educationalists, that because of having a spring examination so soon after the closing of the senior session a large number of students left the lecture room five or six weeks before the time, for the purpose of cramming; and the consequence was instead of having a six months session they had really a session which lasted not much more than four months. I have now before me the full text of the petition signed by some four hundred students in Toronto. In the last paragraph they said they were sorry the impression prevailed in the Council that that was the custom among the students and that they were willing in case the Council granted a spring examination, to give any reasonable guarantee that the Council might ask, that they had attended the requisite number of lectures. They further state "the only reason urged for the discontinuance of the September examination is that it is (reads from petition, etc., etc.,) from the supplementary examination, etc., that the fees of this supplementary examination be increased so as to cover the extra expenditure, but that in any event the examination be given us." In my resolution I have explicitly stated that all students who have failed to pass previous examinations and present themselves for examination in the fall of the year shall pay a fee of $20 for the examination. In the rules and regulations as to axaminations we find that rejected students heretofore have had to pay only $10, and I have taken advantage of this suggestion given by the students, that if we do not see our way clear to giving an examination in the fall without extra expense we may increase the fee; I don't think that is an exorbitant increase, especially for a student who has to come back to examined on the same subjects he may have fallen short on before.

Dr. Day—This is a double-barrelled resolution; I approve of one part of it and not the other. Giving a supplementary examination is giving a thing I don't think is necessary myself; if students want it and are willing to pay for it, it is all right, though I think if a student cannot pass in April, 1892, he ought to wait until April, 1893, and whether he suffers or not, the public won't have to suffer from having him practising medicine. The fall examination I think is not necessary, and I will not support that; but changing the examination from September to April, I think is a good idea. I have had more trouble and more complaints about examination being put in the fall instead of the spring, than any other question that the Council decided upon last year. I may say it has been almost a universal thing with students to complain that they would have to wait all summer, after having completed their curriculum for studies, and not be able to go up in the fall; I think it would be very wise to change that.

Dr. Geikie—Before it is put, I would like to say a few words. There is no valid reason in favor of the examination being held in the fall that I know of, but there are a great number why it should not be held in the fall,—why it should be held at the close of the spring session. The feeling among students over this is universal, and if you deny them their request, I am quite sure they will go to the Legislature, and not the students of one college only, but the students of all colleges that have to do with the Council. A man has finished his last session and perhaps may be very poor, what is he to do from spring until the autumn? Again, he is better prepared in the spring than he will be in the autumn, and, change in any way you like, there are a hundred hardships chargeable to postponing the examination, and not a single disadvantage in connection with its being carried out as heretofore, in April. I would like just to say to the members of the Council, especially of the Education Committee, that the feeling is universal as regards the students. As regards the colleges, it does not matter a straw to them particularly; but if there be a great many reasons against postponing the examination to the fall, and no reason against holding it in the spring —but a great many reasons in favor of doing so—I would submit that the desirability of having our ordinary examination in the spring is paramount. As to a supplementary examination, that is another matter.

Moved by Dr. Day, seconded by Dr. Bray, that the motion of Drs. Britton and Thorburn be referred to the Education Committee. Carried.

Dr. Bergin, in moving a resolution of condolence to the family of the late Dr. W. H. Oliphant, seconded by Dr. Logan, spoke as follows: Mr. President and gentlemen, since we met here last year, death has removed one of the youngest members of the Council, and one most unlikely to be carried away. We all know that Dr. Oliphant was taken from us during the vacation, carried away very suddenly; and we all feel that we have lost one of the most valuable and useful men in our body. It is true he was with us but a little while; but during that time he developed an amount of ability which was unexpected in one of his years. He attained a grasp of the proceedings of this Council and a mastery of all the necessities of the profession, and he showed that he was in no sense behind any member of the Council in desiring to forward the interests of the profession, to raise its standard of preliminary and professional education, and to put us before the world in the position that we ought to occupy. He realized, and showed that he realized, that this Council was established in the interests of the public; that it really was established for the purpose of standing between the profession and the public, so that no half-educated or ignorant man would be sent forth to practise the profession of medicine in the Province of Ontario. Belonging to a different branch of the profession from that to which the majority of us belong, he realized that the members of his body, in order to have that standing in the community which they ought to have, should have a thorough training in the other branches of the profession. He cordially supported his older colleagues in the endeavor to bring about that much to be desired state of affairs, and he left no stone unturned to accomplish his object; assisting his colleagues to establish an hospital to be conducted on homœopathic principles, in a manner that won for him the greatest praise. He was at the time of his death engaged in endeavoring to secure for homœopathic students of Ontario a chair, to be established in connection with the Toronto University, so that in Ontario they might secure that education which, up to this time, they had been obliged to go to the United States to obtain. I feel with the knowledge of all this before us, that we have reason to feel deep regret that so valuable a life has been taken from us, and I am sure the members of this Council sympathize deeply with his bereaved wife and family, and will strongly desire to place upon the record of this Council the regret and the sorrow that they feel in his having been taken away so suddenly and unexpectedly.

At the request of the President, out of respect to the memory of Dr. Oliphant, the vote was taken standing.

Moved by Dr. Moore, seconded by Dr. Miller, that a copy of this resolution be engrossed and transmitted by the Registrar to Mrs. Oliphant. Carried.

Dr. Day—In reply to a question from Dr. Rogers, *re* the case of Dr. Nelson Washington, "As chairman of the committee, I would say we took evidence on the charges made, and found them proven; and we reported to the Council that we had found them proven, together with the evidence we had taken; and it was competent then for the Council to look over and revise, if they chose, or revise our decision if they wished; but in consequence of certain letters, Dr. Washington wrote action was suspended; the Council really did not fully consider the report; and that report is before the Council now, or at any other time, at any session, for consideration; the report of the committee, I think, was this, in consideration of the letter received from Dr. Nelson Washington, proceedings against him should be suspended until the next meeting of the Council, adding that the committee did not thereby approve of the form of advertisement contained in Dr. Washington's letter, nor of any other advertisement. They simply, in consequence of the letter he wrote, actually admitting he had done wrong, and promising not to do so again, suspended action on the report until further time. I think it is now a matter for the Council to take up the report where they left off before, and take such action on it as they think proper. It is competent now or at any time, I think, for the Council to take up the report and deal with it as they deem best. I would ask that the consideration of this report be deferred until to-morrow.

Miscellaneous Business.

Dr. Williams moved, seconded by Dr. Henry, that a Reporting Committee be appointed to make provision for preparing reports of the daily proceedings of the Council for the public press.

Dr. Moore moved, seconded by Dr. Miller, that the mover and seconder of the motion, together with Dr. Orr, form the committee. Carried.

Moved by Dr. Harris, seconded by Dr. Orr, that the Council now adjourn to 2 o'clock p.m.

Afternoon Session.

Wednesday, 15th June, 1892, 2 o'clock p.m.

Medical Council met in accordance with motion of adjournment.

The President in the chair called the meeting to order.

The Registrar called the roll. All present, excepting Sir James Grant.

Minutes of last meeting read and confirmed.

NOTICES OF MOTION.

No. 1. Dr. Miller, *re* the distribution of the annual announcement, and all documents and papers reporting proceedings of the Council and its various committees.

No. 2. Dr. Miller—That the Committee on Education and the Committee on Registration be instructed to report from day to day on the matters referred to them.

No. 3. Dr. Geikie—That the committee appointed under Dr. Williams' motion to amend and consolidate the Medical Act, be instructed, first, that the Act be amended so as to provide that no annual dues be levied on medical practitioners for years during which they have not resided in Ontario. Second, to provide that no institution or body which neither teaches nor examines in medicine shall be entitled to representation on this Council. Third, that no by-law of the Council shall be valid which in any way interferes with the most perfect fairness and public character of the election of members representing territorial divisions. Fourth, that the annual certificate shall be called hereafter "annual receipt," so as to meet a very serious sentimental objection.

Dr. Henry—To legalize a tariff of fees for the Brock and Saugeen Division.

Dr. Logan—That when this Council approach the Legislature for any change in the Medical Act they ask for power to appoint examiners for five years.

Dr. Miller—That the Finance Committee be required to place before the Council, at the earliest possible moment, a full statement in detail of the finances of this Council as they were on the 1st of June, 1892, and an estimate of the receipts and expenditures for the year ending June 1st, 1893.

COMMUNICATIONS.

None.

MOTIONS OF WHICH NOTICE HAS BEEN GIVEN AT A PREVIOUS MEETING.

On request of Dr. Harris, his motion to levy annual assessments stood over to the next meeting.

On request of Dr. Miller, his motion, *re* examiners, stood over until the report on the Education Committee was presented.

At the request of Dr. Harris, his notice of motion, *re* students' names in annual announcement, was referred to Education Committee.

Moved by Dr. Williams, seconded by Dr. Moore, and, *Resolved*, that Drs. Day, Geikie, Moore, Bergin, Britton, Logan, and the mover be, and are, hereby appointed a special committee to consider the advisability of consolidating and amending the Medical Act, with instructions to report at the present session of the Council. Carried.

Inquiries—None.

Reports of Standing and Special Committees--None.

Consideration of Reports—None.

Unfinished business—None.

Miscellaneous business—None.

Dr. Bergin moves, seconded by Dr. Harris, in order that the committees may get to work at once, that this Council do now adjourn till Thursday, the 16th inst., at 10 o'clock a.m. Carried.

Thursday, 16th June, 1892, 10 o'clock a.m.

Medical Council met in accordance with motion for adjournment. President in the chair.

Dr. Geikie introduced the Hon. Charles Drury, ex-Minister of Agriculture, to the meeting.

Mr. Drury addressed the meeting shortly.

Dr. Wylie, M.P.P., was invited to take a seat on the platform.

Registrar called the roll. All present excepting Sir James Grant.

Minutes of last meeting read, and on motion, the minutes were ordered to be signed by the President as correct.

NOTICES OF MOTION.

No. 1. Dr. Day—That at the meeting on the afternoon of Friday the 17th inst., immediately after reading the minutes, the order of business be suspended, and that the Council go into Committee of the Whole on the report of the Discipline Committee, *re* Dr. Washington.

No. 2. Dr. Campbell, *re* a by-law to appoint a Discipline Committee.

COMMUNICATIONS.

Dr. Pyne read a communication from Dr. Schomberg Elliot re-registration. Referred to committee.

MOTIONS.

At the request of Dr. Harris, his motion, *re* by-law for levying assessments, was left over until after the Finance Committee report. Dr. Geikie moved, seconded by Dr. Fulton, that the Registrar be required to post as soon after their publication as possible to every registered practitioner in Ontario, a copy of the annual announcement, medical register and such other papers and documents as report proceedings of this Council and its committee. Carried.

Moved by Dr. Logan, seconded by Dr. Henderson, that when this Council approach the Legislature for an change in the Medical Act, they ask for power to appoint examiners for five years. The reason why I propose moving this resolution is from a conviction I have had for some time that we could improve upon the manner of appointing our examiners. I am disposed to think it would result in increased efficiency to the examiners as well as to the Council. I mean an increase of practical efficiency. Those of you who have been examiners must be aware that two years is certainly too short to gain a practical and real knowledge of the work required from our examiners. The first year is practically lost in the novelty of the occasion; the second year the examiner becomes somewhat practically acquainted with the work required to be done; and then his time ceases, and the experience thus gained is lost to the Council and to the public. It occurs to me, therefore, that in order to increase this practical efficiency it would well that our examiners should be retained during the entire period of the Council—five years; we would thus gain better qualified men, and would give better satisfaction, not only to the Council, but to the students. Those of you who have been examiners are aware it is not very easy matter to make good selections in the way of questions for oral examinations; it requires considerable experience to do this in a manner that would be profitable to the expectations of the Council as well as to the interests of the students. There is another reason why I think it would be beneficial, and that it would put a stop largely to the importunities of outsiders upon the members of the Council to get their friends on the Examining Board; and the appointment for five years would do away with any necessity for such lobbying. It would also in a negative way be quite an advantage to the members of the Council. They are undoubtedly considerably exercised over these importunities for their friends in the endeavor to make a selection for examinership; it would put a stop to that part of it. For these several reasons it occurs to me it would be very desirous to make this change. At all events introducing this motion affords you an opportunity of expressing an opinion upon it.

Dr. Bray—While I agree with a great deal that the last speaker has said, still there are some reasons, I think, and strong reasons, why we should not adopt this course. True, if you have a good Board of Examiners, as I believe we have to-day, perhaps one of the best this Council has ever had, the principle would be a good one; but if you get a bad examiner, and the period were fixed for five years, you would be in a bad position. We have had experience in that line (very little I am glad to say), and Dr. Logan makes a very strong point for my contention, when he says it is very difficult for a man in oral examinations to examine a great number of students. I have a case in my mind just now, where an examiner in oral examinations had about one hundred and fifty or two hundred students to examine, and before he had got to the thirtieth student, his supply of questions had run out, necessitating a repetition; and you know that at examinations, as each man comes out, the students are all around asking, What did you get? and if a man has only got a limited number of questions, they are very apt to get on to these questions. Those are the objections I have. I quite agree with the reasons that Dr. Logan has advanced, or the argument he has advanced, in some respects; as I said before, when we have a good Board of Examiners, I think you can't keep them too long; the longer they are on the more efficient they get. I was told by two or three of the examiners this year that had been on two or three years, that they had no idea what poor examiners they were when they first went on, and that they were improving. Some of the examiners thought with Dr. Logan, it would be a good plan for examiners to be on five years, but those very men who were speaking in this manner said they wanted to be relieved this year, they were tired of it. I think if you leave it as it is at present, in the discretion of the Council, and keep a good man on for five years; if you have a poor man you can turn him off at the end of one year, it will be better.

Dr. Bergin—I submit that the motion of my friend Dr. Logan is not in order. You will find if you turn to Section 21 of the Act, that it is not within our power; that the law makes it compulsory for us to elect annually a Board of Examiners for the purpose of examining candidates. Until the Medical Act should be amended, it would not be possible for us to entertain this motion; and I don't think it would be wise for us under any circumstances to fix a term so long as five years, for, supposing unfortunately, as happened in the early history of the Council, that a man has been appointed to the Examining Board, who, when he came to that Board, was totally unable to examine a student upon any subject, what could be done? Would it be wise that an examiner should be appointed under a hard and fast rule of the Council, and remain there during five years under such circumstances? Again, many causes might arise which would induce us to change an examiner, if we found he was not thoroughly up in the branch which he was appointed to examine upon, or we found he did not give to the subject the time he ought to give; or if we found his questions were not fairly and properly put; or if we found he was not just in awarding the numbers to the candidates before him. All these things would require of us that we should dismiss him. And we ought not, I think, to ask the Government to amend our Act in such a way as to place us in a position which might cause difficulty, and perhaps bring about actions against us by gentlemen who felt they had a right to remain for five years, under the order of the Council. I would therefore ask your ruling upon the point of order, Mr. President.

The President—As I have the motion, I consider it in order. The motion is, that when we approach the Legislature for any change in our

Act we ask for power to appoint our examiners for five years.

Dr. Bergin—I did not understand the motion so; I thought it was a motion to appoint them now for five years.

Dr. Geikie—I would just emphasize what has been already said, as one who perhaps has had a good deal of experience in examining; when we get a good examiner we can hardly have him too long; when we get an inferior examiner we can hardly have him for too short a period, and to saddle ourselves with an examiner or assistant who is inefficient for five years, would be a very serious thing.

Dr. Thorburn—I have had considerable experience in examiners, and I quite agree that it would not be well to prolong the appointment. These men who have the appointment for two years, and are known to be good examiners, I think, as a rule, are generally re-appointed, so the reasoning does not hold good in reference to them; and it is well to have the whip hold in our own hand when we come to deal with indifferent men, that we can control and dispose of them as we see fit. I think it would lead to a good deal of trouble and annoyance, and even worse results, to make the appointment for five years.

The President put the motion, and, on taking a vote, declared it lost.

Dr. Miller moved, seconded by Dr. Fulton, that it be an instruction to the Committee on Education and to the Committee on Registration that they report from time to time on matters referred to them. Carried.

INQUIRIES.

Dr. Britton—The Property Committee, as originally constituted, consisted of three members, one of whom—for reasons which he assigned here—declined to act on that committee, which leaves but two on the Committee—Dr. Philip and myself—I would like to ask the Council whether or not it is the intention of the Council to make that committee complete by adding another member. I would also ask the Council to define what our functions are. We have done nothing so far, for the simple reason that we do not know what we have to do.

Dr. Bergin—I think, Mr. President, the understanding was that Dr. Wright was to really have charge of the building, and that the Property Committee was appointed to consult with him when he found he had any matters sufficiently serious to require consultation on.

Dr. Philip—I think membership on this committee is of an honorary character; in point of fact the Finance Committee have acted in everything as regards figures and things of that kind, and there is nothing to come before the Property Committee.

Dr. Williams—Dr. Bergin refers to Dr. H. H. Wright as being the supervisor, or whatever you may call it, of the building. I believe, through an oversight last year, Dr. Wright was not formally asked to act; and he, of course, as any reasonable man would, felt a little sensitive over it; and he declined to report when he was not appointed by the Council. And if the Council would like to have Dr. Wright act in the capacity that he has so admirably filled with so much care in time past, they should properly request him to do so.

Dr. Bergin—With the consent of the Council to the variation of the rules of order I would move, seconded by Dr. Williams, that Dr. Wright be re-appointed Warden of this building.

Dr. Campbell—I do not think in point of order it is really necessary to make this motion, because I understood when Dr. Wright was appointed to that position he was appointed at the pleasure of the Council; I did not understand he was appointed as an annual officer.

On a vote being taken the President declared the motion carried.

Dr. Philip, seconded by Dr. Bray, moves that Dr. Thorburn be appointed a member of the Property Committee. Carried.

Dr. Britton—I would ask the interpretation that the Council places upon paragraph 1, section 2, page 12 of the annual announcement: "On and after the 1st July, 1892, every student must spend a period of five years in actual professional studies." Is every student who registered before the 1st of July, 1882, entitled to go up for his final examination, and receive his license at the end of four years, whether he registered prior to or since the time this regulation was made, so long as it occurred before the 1st July, 1892? I ask this question now because the Registrar has told me that he has been called upon by several students for information on the subject.

Dr. Moore—This question was answered at page 201 of the annual announcement, 1891-92, by Dr. Bergin, who said, "I think that the young men who are now attending the medical schools in this country are in good faith acting under our present regulations, and to compel them to alter their whole course and to alter the arrangements that they have made, would not be quite fair." I would be pleased to have the Council and every member fully understand that this question has been answered, and answered satisfactorily, in this manner, and that we understood, and the students understand too, that any student who matriculates before the time specified, which probably may be changed to November, shall be only required to take the four years' course and not five years.

Dr. Williams—I don't think it is necessary to make any change. The established rule, if not the written letter of the law, is that whatever curriculum a student enters under he has a right to complete his course. I think that is an established rule at all colleges. I think the opinion given by Dr. Bergin on page 201 of the announcement is good, and the Council will fully understand that is the custom and that they intend to be governed by it.

Dr. Moore moves, seconded by Dr. Orr, that the Finance Committee be required to place before this Council, at the earliest possible moment, a full statement in detail of the finances of this Council as they were on June 1st, 1892; and an estimate of the receipts and expenditures for the ar ending June 1st, 1893. Carried.

(*To be continued.*)

Selected Articles.

OUR MISTAKES.

The man who makes no mistakes seldom or never does anything worthy of note. Life is so closely interwoven with tentative efforts on the part of these who keep its machinery in motion, that it would be strange indeed if mistakes were not often made. As experience, often dearly bought, on the part of both doctor and patient, is our best guide amidst the pitfalls which surround us, I think it is a most profitable task to go over the ground of our past experiences and gather up the lessons taught us by our failures and mistakes. A great general was once found making a careful survey of the field of a battle which he had won. On being asked what he was doing, he said he was *studying his mistakes*—a lesson well worthy of our imitation. Our mistakes may be divided into (1) those which can and ought to be avoided by every intelligent, well taught, and experienced practitioner; (2) those which can only be avoided by an unusual amount of experience and insight; (3) those which no amount of care, experience, or insight would enable us to avoid. I shall give examples of these as we preceed. In disease nature is forever making fresh experiments before our eyes, and we are to watch how she varies the experiments lest its many variations from the normal type of the disease mislead us into a false diagnosis. Each disease varies as much in expression as the human countenance. In my experience no two cases are exactly alike. What is described as a typical case exists only in the imagination of the writer of a text-book or a lecturer to his class. This typical case is like the archetypal vertebra, which exists only in the brain of the anatomist; all real vertebræ are, like all real diseases, variations from the typical. To push the analogy, just as the skilled anatomist can amplify the most rudimentary vertebra into one possessed of all its parts, so the skilled physician can grasp the true nature of a case and build up a diagnosis from the faintest indications; and, further, he can simplify and reduce to order the most irregular and complicated manifestations of a difficult case. It is by the exercise of this constructive faculty on the one hand, and by that analytical faculty on the other, that our difficulties are to be overcome and our mistakes avoided.

With regard to the first class of mistakes—namely, those which ought to be avoided—let me remark that the best of us will sometimes be caught napping. "Nemo mortalium omnibus horis sapit." We somehow get on the wrong scent in a case, and becoming occupied by a train of minor symptoms, miss its main features; or we are the victims of a preconceived opinion. and it shuts our eyes to facts which would be patent enough if we brought an open mind to the case, I shall give one or two illustrations of the kind of thing which occurs. There is no more common source of error in diagnosis than the subtle development of hydrothorax or empyema after an acute illness. When these diseases arise from an attack of pleurisy pure and simple there is little fear of their being overlooked—in fact, they are then often diagnosed when they can hardly be said to exist. But when they supervene on another acute illness, such as typhoid or scarlet fever, the practitioner is liable to miss their existence, and to attribute the rapid breathing, quick pulse and fever, to some other sequelæ such as tubercular disease, bronchitis, or albuminuria; yet the faintest suspiction would lead to the easy detection of the true state of affairs. The immovable chest wall, the absence of respiratory sounds, the dullness on percussion and the absence of vocal fremitus, are indications too clear to be easily mistaken. The mistake arises from want of suspicion or want of alertness, or from a want of care in making a thorough and frequent examination of the patient.

"Strip him!" is a motto which ought to be engraven on all our minds. This brings me to another source of error; that is the want of a thorough examination of the various canals and cavities—the the mouth, the throat, the nares, the ear, the rectum, the generative and urinary tracts, etc. I need not say that I refer to an examination by all the specular aids we possess. No small number of failures and mistakes arise from this inattention to this point. Let me give one or two illustrations. Whenever we are at a loss to account for a high temperature, the throat should be examined. There may be a good deal of mischief there without any complaint on the part on the patient. I well remember being called to two consecutive cases—one of supposed pneumonia, the other of quasi-puerperal fever—in each of which I found that diphtheria was the true cause of the illness. Within a very short time a gentleman called on me, with an apparently feverish cold. As he did not get well, he asked me to call on him ; and I, thinking his symptoms were due to the above cause, handed him over to the care of an exceedingly acute local practitioner, who discovered at his first visit that our patient had a diphtheritic throat. Most medical men will agree that such mistakes are not uncommon, and we need to add to our first motto, "Strip him !" another equally golden rule —to examine the canals and cavities. Another illustration may be added. A short time ago I was asked to see a child suffering from obstinate hæmorrhage from the bowels, and I said at once, "I shall find a pediculated polypus in the rectum," which was found and detached at the moment. My experience at the Children's Hospital had taught me this lesson years ago.

A further illustration still occurs to me. A gentleman whose name is now a household word throughout the world called on me in great alarm on account of an attack of blood spitting, which came on while he was dressing. I saw a good deal of blood on his handkerchief, and on examining his chest heard, or thought I heard, rough breathing and fine crepitation over the left apex. I told him this, and treated him accordingly. On going to his shop he, knowing something about dentistry, looked into his mouth, and discovered that the eeding was from a spongy gum, which he had ubtless lacerated with his toothbrush. I need ot say that he lost confidence in me, and I lost ny patient. Time would fail me to make further emarks on these casual cases, where mistakes are ften made for want of thought and care.

I will now relate a series of cases of cancer where a diagnosis was only to be made by an unusual amount of care, experience and insight ; and if I seem to be egotistical by taking praise or blame to myself, I trust my unintentional fault will be pardoned. I am going almost entirely on my own experience, and I am thus compelled to speak of myself oftener than I like. Cancer of the internal organs rarely fails to puzzle us at the outset, and a diagnosis is seldom made until the disease has made considerable progress. In the absence of distinct physical signs, and with only subjective symptoms, such as pain, to depend on, we are very liable to be landed in a grave difficulty of diagnosis. If we suggest there is, or may be, maligant disease, the responsibility is great ; if we risk an opposite opinion the responsibility is equally great, as the sufferings of the patient are often urgent and demand an explanation. Mistakes can only be avoided here by the utmost caution and the most watchful investigation. There is, however, one feature about these cases which occurs to me when I look back on a long series of them. It is this, that most of them have given at a somewhat early period just the faintest hint of what is going on. I have often felt too late that a wise interpretation of this or that faint hint would have saved me and others from the ignominy of being from being forestalled in our diagnosis by someone else. It is easy to name a full-blown flower, but difficult enough when that flower is in bud. I shall now give an experience founded on five cases of internal cancer, which will illustrate my meaning.

Some years ago a case occurred in the practice of the late Dr. Douglas of Gateshead, in which the chief, and for a long time the only symptom was pain in the tibia. The man was emaciated and suffered intensely. He was seen by two or three physicians and one or two leading surgeons. None of us could form a diagnosis. There was no swelling, heat, tenderness, or alteration in the shape or appearance of the limb. At length some softness and shining of the skin marked the seat of pain, and even then grave doubts were entertained as to the nature of the disease. Within a few days of his death I was called to see him again, and I found he had expectorated some currant-jelly-like matter ; but even this failed to suggest a true diagnosis, and so the man died of "no one knew what." Meditating on this case, it all at once flashed into my mind that the red-currant-jelly expectoration was a hint of the case, and that the man had doubtless died of cancer of the lung, following or accompanied by malignant disease of the leg. I felt that a serious error by default of diagnosis had occurred, and was much humiliated thereby.

Not long after this I was called to see a case in Weardale, and was told on arrival that the patient was suffering from congestion of the lungs. The expectoration, which was shown me before I examined the patient, at once convinced me that this was a case of cancer of the lung. There were, however, no physical signs ; and on mentioning my conviction to the medical attendant he was very sceptical, and threw on me the enormous responsibility of giving an opinion based on the one isolated fact of currant-jelly expectoration. I therefore re examined the chest and discovered a cancerous nodule in the right mammary gland, which of course set the diagnosis at rest. An unfavorable opinion was given, which soon afterwards proved mournfully correct.

A short time after this I was called, with my friend, Dr. Adam Wilson, to see the married daughter of the above lady. We were informed that her arm had been amputated above the elbow by Sir Joseph Lister for disease in the forearm. The patient was then complaining of pain at the posterior base of the right lung, but the physical signs were faint and doubtful. We therefore reserved our opinion, but privately agreed that it was probably a case of cancer of the lung, and that Sir Joseph Lister had amputated high for malignant disease of the forearm. In due time came the currant-jelly expectoration, and she died of cancer of the lung. In these cases the faintest hints were given at the outset, and errors by default of diagnosis could only be avoided by paying heed to them. We ought to make ourselves well acquainted with this red-and-black-currant-jelly like expectoration of cancer of the lung so as to be able to distinguish it from the bistre or sooty tint of pulmonary apoplexy and old hæmoptysis.

Pursuing this subject, two other instructive cases occur to me. About fifteen years ago the late Mr Manford had a case which puzzled several of us. The chief symptom in this case, for at least six months, was an intolerable pain on the front of the thigh three inches above the knee-joint. All sorts of opinions were expressed, and of course hysterical knee was the favorite. At last it occurred to me that, this region being supplied by terminal twigs of the obturator nerve. we ought to examine that nerve along its whole course, and this could only be done per rectum. On passing the finger the secret was at once discovered to be a carcinomatous mass springing from the side of the pelvis, and growing into that part of the pelvic cavity which is traversed by the obturator nerve.—Wm. Murray, M. D., in *Lancet.*

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AMPUTATION OF THE BREAST FOR MALIGNANT DISEASE.

The subject of this paper is one on which there has been wide difference of opinion, though the very large majority of surgeons is on the side of radical operation, some of the very ablest believe in only the palliative steps and partial removal. In discussion of this most important operation, important because of its ever-recurring need and the vital necessity for its proper execution, statistics are of little value. True though it is that figures will not lie, yet through the incompleteness and inaccuracy of compilers, statistics may be made to support or destroy nearly any theory. It is the intention to present in this paper only the logical side of the question. Certain facts are well established.

The average duration of life in carcincoma is less than three years from the time of discovery of the tumor, and ten per cent. of all deaths from carcinoma are breast cases alone. The affection is invariably fatal, after a most painful and loathsome course, and occasions by its very presence the most melancholy mental distress. The percentage of recurrences after the old operation, usually incomplete, is 75 per cent. In sarcoma the progress is more rapid and the diagnosis in the early stages difficult. It occurs more frequently early in life and if hesitation permits its continued growth, it soon becomes inoperable. When attacked early, its renewal is simple compared with the radical operation for carcinoma and the prognosis probably is more favorable.

Repeated operations are to be undertaken without hesitation whenever the sarcomatous evidences re-appear. The comparative inseverity of the operation makes this doubly appropriate. If unarrested, it is early fatal.

That both carcinoma and sarcoma develop as local affections, is an undisputed question. How far predisposition or inheritance may tend to the development, is not determinable.

Were it certain, however, that such influences were constant and effective, the propriety of the removal of any attempt at location, as early and as thoroughly as possible, would still be an imperative duty.

The influence of heredity is perhaps wholly in the limits of tendency or predisposition and is more positively shown in many malformations and incompleteness of development than in any direct constitutional manifestation, save perhaps syphilis alone.

Surely no surgeon would hesitate to operate on a hare-lip, or a club-foot, or a cross eye, because it was a family characteristic, as is so very commonly the case. Fully as practical it seems, would be an objection to remove the local determination of carcinomatous predisposition when accessible and eligible.

Granting every claim made by those who favor incomplete operation, or who absolutely decline to operate, there are but three objections to the demand for fullest relief, *i. e*, the uncertainty of diagnosis, the increased mortality when the axilla is invaded and the probability of early recurrence. With respect to the first objection, it is but fair to say that hesitation is to be observed in the young when the functional activity of the mammary gland is a matter of great importance and when the probabilities of carcinoma are few, when chronic inflammations and abscess, adenoma and various benign cystomas are the rule. While carcinoma can usually be excluded under these conditions, sarcoma is often simulated. At the very worst an exploratory incision can add nothing to the gravity of the non-malignant conditions but will readily establish a diagnosis while there is yet full time for help. After the 40th year all removable tumors of the breast should be excised, the earlier the better, without regard to diagnosis.

The overwhelming balance for good in such a plan leaves the few removals of benign tumors out of deserving thought.

With respect to the second objection it may be said that there is no argument against interference so strong as incomplete work. Better do nothing than half do the operation. Even after the most radical steps the mortality must always be trifling in competent hands. Under the present system of surgery there is but one danger of the older surgeons left us—shock—unless by accident some injury be done the great vessels of the axilla. In a recent paper of great thoroughness, which makes its statistics of unusual value, Dennis, of New York, reports 71 cases of complete removal of the breast, with but one death, that one from a hæmorrhagic diathesis. I have nine times in the last three years removed the breast and opened the axilla without accident and almost without shock, usually securing primary union and getting the patient out of bed in less than a week. These operations were all done in private practice. The patients are all living with one exception. In this case, death occurred at the 14th month from carcinoma of the liver; there was also recurrence in the cicatrix. In one other case in which a considerable portion of the wound was left to heal by granulation, owing to extreme infiltration, the cicatrix has always had an unhealthy look and occasionally weeps a non-offensive serum, but the general health of the patient is wonderfully improved, indeed, perfect but for some disabling of the arm on the affected side; and now after quite two years, she feels that she was rescued from the grave. The other seven patients are without any evidence of disease.

This number is far too small to consider, as data, and the microscopical record of several of the cases is wanting, hence no detailed report is worth while. They merely help to show what may be gained by complete operation and that the added danger is practically *dil.* With respect to recurrence of the disease, I shall say little. The title of Dr. Dennis' paper above referred to is " Recurrence of Carcinoma of the Breast." He gives as the influences of recurrence,

1st. The age of the growth. 2nd. The extent of infiltration. 3rd. The completeness of the opertion. 4th. Histological chracater of the carcinoma itself.

He claims that of this last cause, he has made careful study, to find that in proportion as the histological character of the tumor varies from that of the surrounding structure it is malignant and recurrent.

As a result of Dr. Dennis' operations, the percentage of cases surviving three years without recurrence is thirty. A very considerable proportion of the remaining were progressing well but are not yet up to the three year limit.

Thus, then, we have the practical aspect of the case: Certain and early death without operation. Accurate and early diagnosis in doubtful cases by incision. Safe and re-assuring aid by complete operation. A most encouraging hope of cure in one-third of all cases.

To secure such results, however, are demanded early and complete operative steps even in the most favorable looking cases. It is impossible to tell the extent of infiltration, or the lymphatic involvement. The operation must be radical to the extreme.

There is a certain class of patients upon whom no capital operation can be undertaken. In addition there are cases of carcinoma and sarcoma in which infiltration and ulceration are so extensive —in which vital structures are so involved—or in which metastases are already present, when operation is positively contra-indicated. These any wise surgeon will recognize. But of the other class of cases—so large and promising so much, there is a hope that skill and patience will determine results now past belief.

The operation: At the inner angle of the wound, a granulating surface heals with great ease and no fear need be entertained in cutting away freely. It is always best to remove completely the skin under which the cellular tissue is infiltrated even with inflammatory products.

To dissect off such deposits leaves a thin flap which may slough, and less satisfactory repair is obtained than when a free open wound is made at once. All fascia and all infiltrated muscle—even to the ribs should be completely cut away—with resection of the bone, if involved.

In firm but non-infiltrating tumors which dissect off freely, the muscular surface should be left stripped of fat and fascia. The flaps adhere more readily to clear muscular surfaces, and sloughs are less likely under unfavorable conditions. When the infiltration and ulceration are considerable it is always imperative to make an incision circumscribing all possible disease, without regard to the feasibility of getting flaps.

In removal of the glands, the vessels should always be exposed by extending the incision to the insertion of the great pectoral muscle and locating the axillary vein. All fat, fascia, and glandular tissue should be removed. The subscapular vein should be tied before division if it can be found. There will then be no hæmorrhage unless the muscles are divided. This step may be necessary when infiltration has involved these structures; even the axillary vein has been resected when found diseased.

The fingers should be passed up under the pectoralis minor and the subclavicular space searched for glands always.

The wound should be irrigated with 1-1000 hot bichloride and then washed out with 1-3000. A short drain should be put in the axilla and brought out through a counter opening.

The axilla should be closed as far as approximation can be made. If the inner part of the wound cannot be covered it should finally be left to granulate.

Skin grafts after Thiersh's method are not satisfactory except with special surroundings.

If the inner end is closed up, a short tube is placed in the angle also. The tubes should be removed in 48 hours, unless otherwise indicated.

The best material for sutures is silk-worm gut. Next, reliable cat-gut. Tension sutures of large silk are appropriate sometimes.

The ordinary iodoform and gauze dressing is to be applied. The wound will be redressed in 24 hours, the drainage tubes so placed in the dressing that they can be taken out next day without disturbing the overlying gauze. The arm bound loosely in a sling. Redressing will depend on the nature of the wound. If there is no surface left to granulate, redressing will not be required unless some accident permits suppuration. The granulating surface must, however, be looked after. The patient may be allowed to be up about the fourth day if she does ordinarily well. Even in granulating cases I think the patients do better out of bed,

If the resulting cicatrix looks unhealthy, or if the wound fails to heal, it is unwise to be in a hurry to operate on it, as such conditions frequently ultimately get well.—*Med. Mirror.*

CATARRHAL GASTRITIS.

In examining an old work published at the beginning of this century, giving an analysis of the admissions to the dispensary of Plymouth, England, I was struck by the nosologic entities that have disappeared from the average statistical table in the last ninety years. Among others, the general term febris has given place to a better nomenclature of the pyretic diseases. Anasarca has been succeeded by terms that reflect a better understanding of the protean conditions that underlie this symptom-group. Atrophia, convulsio and palpitatio have shared a like fate. The term dyspepsia, however, seems to occupy the same place, in our nomenclature that it filled at the beginning of the century. The cause of this is to be found in the obscurity that has until recently surrounded the organic and functional disorders of the stomach. Of late, an immense gain has been made in our knowledge of the diseases of this viscus, notably in the increased precision attending the examination of the stomach-contents. It would seem as if the time had now arrived for discarding the term dyspepsia altogether as a pathologic entity and of relegating it to the limbo of broad symptom-groups occupied by such terms as heart-disease, paralysis, and deafness.

W. H. Flint, in his excellent article on the disorders of the stomach in the *Reference Handbook of the Medical Sciences*, does not use the term. It is true that so able a clinician as Dujardin-Beaumetz, as late as 1886, insisted upon retaining the designation, though he significantly referred to the fact that his pituitous dyspepsia is called by the Germans catarrh of the stomach. Dyspepsia, too, remains a convenient term for the manufacturers of certain digestive ferments who advertise their wares as useful in dyspepsia, overlooking that by so doing they are as unphilosophic and uncientific as they would be in exploiting a remedy for the cure of blindness, paralysis, or fits.

The term dyspepsia is proper when it is used to express a condition, just as debility and nervousness are used, but the former is in no sense a diagnosis more than is the latter.

The American people are said to be a nation of dyspeptics, and by all odds the most frequent form of stomach-trouble presented by them is the simple chronic catarrhal gastritis. By this term is meant a slight degree of inflammation of the mucous lining of the organ, which in the mildest cases does not present any appreciable structural change. It is invariably accompanied by an over-production of mucus and an impairment of the digestive power, though fairly good digestion is compatible with the lighter forms of the disease.

Catarrhal gastritis is an affection frequently found associated with or complicating other disorders, both acute and chronic. On looking over my case-books for some years, I find that a diagnosis of chronic catarrhal gastritis has been made 118 times. Carefully examining these records, I find that there are only 17 cases in which the disease can be considered primary; that is to say, excluding all cases in which the disease was associated with heart and lung diseases, liver and renal disorders, rheumatism, anemia, and neurasthenia. So intimate is the relation between the condition last named and catarrhal gastritis that Bartholow regarded neurasthenia as but an effect of the diegestive trouble, claiming that there was no symptom belonging to the category of neurasthenia that may not be due to purely reflex causes having their origin in the digestive tube. This view, while it is not to be accepted in its extreme application, has a certain basis of fact in that a large number of neurasthenics present more or less disturbance of the digestive tract, and very commonly the clinical picture of catarrhal gastritis that has existed for years without the patient presenting any of the symptoms of neurasthenia.

Of the 17 cases in which we could exclude all complicating disorders and the grosser structural alterations, such as ulcer, tumors, and dilatation, the symptomatology was briefly as follows: In 12 cases the tongue was heavily coated; in 3, slightly coated; and in 2 it was clean. Constipation was present in 11 cases. Pain in the epigastrium, both on pressure and after eating, was present in all cases. In 8 there was a sense of swelling or fulness in the epigastrium. Seven cases complained of nausea alone; this was usually worse after meals; the remainder had vomiting. Nine had eructations of gas. The appetite was fair in 6 cases, in 5 it was good, and in 6 it was poor.

The foregoing constitutes the clinical picture of chronic catarrhal gastritis, one of the most frequent disorders that the physician is called upon to treat. The most constant signs are the pain in the epigastrium and constipation, loss of appetite being by no means so regularly present.

The etiology of these cases was not so readily ascertained. The preponderance of the male sex was shown in that 13 of the 17 cases were men. The chief cause was the abuse of alcholics, both in fermented and distilled liquors. The practice of dram-taking just before meals seemed to exercise an especially deleterious influence. There was a history of excessive use of tobacco in several instances, but no case was uncomplicated by the liquor habit. The ingestion of iced liquids, either before or with meals, seemed to be an exciting cause in four cases. Two of these patients used large quantities of tea. In more than half of the cases the etiology was mixed, and in many no definite cause could be ascertained. These latter, however, all belonged to the dispensary patients, and it is probable that poor and improperly prepared food had much to do with the condition. In no single instance could the disease be traced to pre-existing acute or subacute gastritis. The disorder invariably came on gradually, with periods of amelioration, to be followed by relapses, the symptoms gradually becoming worse until the patients consulted a physician. The duration of the disease varied from several months to many years.

The necessity for washing out the stomach in these catarrhal inflammations has been dinned into our ears for some years. Scarcely a recent textbook can be consulted that does not recommend lavage of the stomach as the remedy *par excellence* in catarrhal gastritis. I have no issue to take with this statement; lavage is one of the best means at our command; but notwithstanding continued reiteration, the method does not seem to have become at all popular or to have met with extended application. The reason is not far to seek. The procedure requires a somewhat cumbersome apparatus and the necessity of teaching the patient how to use it. I do not know what the experience of others has been but my own success in this direction have not been 'brilliant. Occassionally a patient can be taught to use the tube, and if he will persist he soon comes to like the treatment. As a rule, patients object when the subject is first mentioned, and if they try the method the generally unpleasant effects of the first one or two introductions is sufficient to send them in search of a physician who employs a less disagreeable treatment. The result has been that the profession has generally adhered to the old-time prescription of bismuth with pepsin, and sometimes a bitter tonic. If any directions are given regarding diet, it is generally no more specific than that he is "to be careful with his diet," or "to eat light food." It is needless to say that these methods are as unphysiologic and unscientific as they are unsuccessful. Patients in this way drift about from one physician to another, until it is not an uncommon experience for them to enter one's office, and after detailing their sufferings, tell you that you need not give them pepsin, bismuth, syrup of the hypophosphites, or beef, wine and iron, as they have had all these.

In catarrhal gastritis the stomach secretes an excessive quantity of mucus. As soon as the food is ingested it is at once coated and prevented from coming in contact with the stomach-wall. The result is that the stomach is not supplied with its normal stimulus, and both the secretion and movements of the organ are lessened. What secretion there is cannot readily reach the food; in consequence, in the absence of the antiseptic power of the gastric juice, the food ferments, gases are formed, and vomiting takes place. The prolonged retention of food and the irritation react to increase the inflammation and congestion of the organ. This morbid cycle, once set up, perpetuates itself with ever-increasing intensity.

The plan employed in treating the seventeen cases that form the basis of this paper consisted in the administration of hot alkaline water before each meal. Sodium bicarbonate is added to the water in the proportion of ten grains to the pint. Of this solution eight, twelve, or even sixteen ounces, according to the severity of the case, are administered at least twenty minutes before each meal. The water should be as hot as can comfortably be borne, and should be taken slowly. By this means the stomach is effectually cleared of its contained mucus, and is prepared for the reception of food. This should consist of a test-meal of from four to six ounces of steak, preferably broiled, with from two to four ounces of bread, thinly buttered. From this starting-point the diet should be increased or decreased as the patient does or does not suffer from nausea or vomiting. The central idea of the diet in these cases is to restrict it largely to proteids, such as lean meats, oysters, and eggs, together with a small quantity of bread. All starches and fats should be excluded, excepting the small quantity contained in the thinly buttered bread. This is a matter of importance because of the readiness with which starches and fats undergo decomposition when gastric digestion is delayed. When the quantity of food that the incompetent organ will digest without leaving a residuum for fermentation has been ascertained, it should be held for a few days at that point and then gradually increased. As the inflammatory condition subsides, the organ gains strength, and the diet may be increased and made to include a greater variety of food. It is doubtful if anyone who has ever had a chronic gastritis should be allowed to eat mince-pies, tarts, plum-puddings, or other culinary abominations. Bismuth, cerium oxalate, nux vomica, and the bitter tonics are useful adjuvants in treatment.

I do not think that pepsin is of any value in the treatment of chronic catarrhal gastritis. I do not wish to be understood as decrying the value of pepsin in certain stomach disorders, notably those attended by atrophy of the gastric tubules, or other structural alterations. Pepsin is also useful in the cases of catarrhal gastritis dependent upon anæmia, nephritis, and other disorders in which the primary trouble is due to failure of gastric secretion from a deficient or poor blood-supply. In these cases the agent may prove invaluable, but, in my judgment, the dose usually employed is much too small. It is in the uncomplicated inflammations that I regard pepsin as valueless; the indigestion is dependent on an entirely different set of conditions.

Relapses are exceedingly common; in fact, they occurred in every one of my cases. They are to be met by a return to the treatment, if it has been suspended, or to a stricter and lessened quantity of food. In the course of the treatment the relapses will occur less frequently; they will be less severe, and will yield more readily to the remedies employed.

The results in the seventeen cases were excellent: eight of them recovered, remaining well at least six months after suspending treatment. Of the remaining nine cases, all were improved, and some of them could be considered recovered, as they passed from under observation completely relieved, but I had no opportunity of learning their condition some months after suspending treatment. In no case was the treatment persisted in for some weeks without marked improvement being noted.

In conclusion, allow me to say that the method of treatment here outlined is of little or no value in cases of tumor, stricture, atrophy of the gastric tubules, or other gross alteration in the structure of the stomach, or when there is marked dilatation. In cases complicated by heart, lung, kidney, or liver diseases, or by anæmia and neurasthenia, the method may be a useful adjunct, but we can hardly expect a cure. It is claimed that it meets the indications in simple catarrhal gastritis quite as well as lavage, that it is much less trying to the patient, that it is adapted to the poorer classes and to dispensary patients, who in many instances are unable to afford even the small expene of a stomach-tube. —Dr. Moyer in *Med. News.*

MEDICAL NOTES.

Prof. Hare said sulphide of calcium is one of the best remedies for the treatment of *Acne.*

Prof. Hare said that a very useful and efficient application *to abort felons* is to make a poultice with bread crumbs and lead water.

For a case of *Anæmia with Amenorrhœa* in a young girl, Prof. Hare prescribed :—

℞.—Ferri redact. . . . . . . gr. $\frac{1}{12}$
In pill three times a day.

For the constipation the following mild laxative :—

℞.—Ext. cascaræ sagradæ fluid . . gtt. xx.
Three times a day.

Prof. Hare said that in the treatment of *Gout* and *Rheumatism* the combination of the iodides with colchicum increases the activity and efficiency of both drugs.

Prof. Hare said that it is of no use to give cod-liver oil after there are *Tubercular Deposits in the Lungs.* It is absolutely harmful in the majority of cases, as it disorders the stomach, and very frequently gives rise to an oily diarrhœa.

For *Headache,* Prof. Hare recommended the following :

℞—Caffein., ... gr. ij.
Phenacetin, ... gr. iij.
Sodii bromid., ... gr. x.—M.

Dr. A. P. Brubaker recommended the following prescription for *Chronic Gastric Catarrh :*

℞—Strychninæ sulphat., ... gr. j.
Liq. potassii arsenitis, . . . f ʒ j.
Acid. hydrochloric. dilut., . . f ʒ j.—M.
Sig.—Ten or fifteen drops in water after meals.

Prof. Hare recommended the following for *Fermentative Indigestion :*

℞—Sodii bicarb., ... ʒ j.
Tinct. gentianæ, ... f ℥ iij.—M.
Sig.—A teaspoonful three times a day.

For a case of *Chronic Bright's Disease (Contracted Kidney)* in a woman forty-two years of age, Prof. Da Costa prescribed five grains of potassii iodidum three times a day; and that the patient be placed upon the usual diet for the disease, and also be given mild diuretics.

Prof. Hare said that ichthyol is the best local application in *Acute Articular Rheumatism,* in the strength of ʒj-ij to vaseline ℥j. It is also an excellent local application in the same strength in dry, scaly *Eczema* and *Seborrkea.* The objections to its use are its color and its odor, which are rather disagreeable.

For the treatment of *Night Sweats*, Prof. Hare recommends the use of camphoric acid. It is almost a specific. Begin by giving it in doses of ten grains and increase the dose until the effect is obtained. The dose may be increased to one drachm daily. It should be given about one and a half hours before the sweat usually comes on.

For a case of *Exophthalmic Goitre* in a man, Prof. Da Costa prescribed tinctura aconiti, gtt. j, every three or four hours, the dose to be increased to gtt. v. His diet should be bland and unstimulating, and he should rest in the recumbent position as much as possible. Prof. Da Costa said that it was very rare to have exophthalmic goitre in a man; while he had seen hundreds of cases in women, he could count on his fingers all the cases he had seen in men.

Prof. Wilson does not believe in the use of poultices in the treatment of *Pneumonia* as a routine practice. He considers that in most cases the benefits are outweighed by the danger. A jacket of cotton or carded wool is much preferable and much safer. When convalescence occurs the jacket should not be removed all at once, but should be cut and removed, part at a time, to prevent the sudden exposure and risk of taking cold.

For a case of *Acute Bright's Disease*, due to exposure, in a man forty-three years of age, Prof. Da Costa gave the following treatment: Milk diet, and rest in bed; drink large amounts of pure water or of mildly diuretic waters, and take Rochelle salts, ʒj to ij daily, and infusion of digitalis, f℥ss three times a day. He may also use vapor baths and may be given a hypodermic injection of pilocarpine, gr. $\frac{1}{6}$ every day or every other day; and later, to control the waste of albumen, give nitro-glycerine, gtt. j, of a one per cent. solution three times a day, slowly increasing the dose.

For a case of *Eczema* of a very irritable type, Dr. Henry W. Stelwagon prescribed the following treatment: Begin by making local applications of the following mild ointment:

℞—Calamin., ... ʒ j.
Acid. salicylic., ... gr. x.
Amyli pulv., ... ʒ j.
Vaseline, ... ℥ j.—M.

After this has been used for some time, there may be added resorcin, gr. x to gr. xl, or sulphur præcip., gr. xv to gr. xx, to the ℥j, to make the ointment more stimulating. Internally, give mistura ferri acetat., f℥ss, in the morning, one-half hour before eating. This should have a purgative action in about an hour after taking it; if it does not, the dose should be increased.

For a case of *Acute Pleurisy* which had been treated with salicylate of sodium with negative result (the pain being lessened, but the effusion not diminished), Prof. Da Costa changed the treatment and prescribed the following:

℞—Tinct. ferri chloridi, . . . gtt. xx.
Potassii acetat., ... gr. xx.
Acid. acetic. dilut., . . . gtt. x.
Syr. limonis,
Aquæ, ... āā q.s. ad f ʒ j.—M.
Sig.—Every four hours, largely diluted.

Also the local application to the chest of the following ointment:

℞—Tinct. iodinii, ... f ʒ ss.
Vaseline,
Lanoline, ... āā ℥ ss.
Olei bergamot., ... gtt. j.—M.

Dr. W. L. Coplin, Demonstrator of Pathology, gave the Jefferson College class the following formula for a *Stain for Tubercle Bacilli* and manner of preparing a specimen for microscopic examination: Take one hundred parts of a saturated solution of pure aniline in water, eleven parts of a saturated alcoholic solution of methyl-violet, and ten parts of alcohol, mix and filter. Leave the specimen in the stain for twenty-four hours, then pass it rapidly through a solution of nitric acid one part and water three parts. After which wash it in alcohol until no more stain can be removed, then dry the specimen and mount it in balsam.

Prof. Brinton gave the class the following prescriptions that have been used by him in the treatment of *Chilblain*, in which he has found them to answer very well:—

℞.—Acid. carbolic . . . . gtt. xx.
Olei terebinthinæ,
Lanolin . . . . . . āā ℥j.—M.
Sig.—Apply locally.

Another that is very useful in many cases is the following:—

℞.—Ichthyol,
Spirit. terebinthinæ . . āā f℥j.—M.
Sig.—Apply locally.

Where there is any tendency to the formation of ulcers the following will serve as an excellent protective:

℞.—Iodoformi . . . . . gr. xx
Collodii flexills . . . . ʒ ij.—M.

—*Col. and Clin Rep.*

THE SEUTIN PRIZE.—The Seutin prize of 5,000 francs, for 1890-91, offered by the Brussels Royal Society of Medical and Natural Sciences for the best essay on "The Etiology, Diagnosis, and Treatment of Inflammations of the Fallopian Tube," has been awarded to Dr. Theodore Landau, of Berlin.

ELECTRICITY IN RHEUMATISM.

In acute articular rheumatism electricity in any form is of doubtful value. In any event, it is very difficult to make satisfactory applications to the inflamed joints and sensitive muscles. While general and local pallative treatment may give great comfort to the patient, and may occasionally prevent complications, it is yet doubtful whether an attack of acute rheumatism can be much shortened by any method of treatment. I have, however, seen unmistakable evidences of the benefit to be derived from the use of electricity after the decline of the acute symptoms, and a subsidence of the excessive tenderness of the joints. In my own experience, this point has been satisfactorily determined by observations in cases where, in repeated previous attacks, convalescence was more prolonged than after resort was had to treatment by the method of general faradization.

Subacute articular rheumatism is far more favorably affected by electrical methods of treatment than the acute form, but even in these cases it must be admitted that the remedy acts with a degree of capriciousness that is often very discouraging. There are some cases that will not be benefited at all by electricity, and I have known a number in which increased pain, heat and redness were occasioned by any and every attempt in the use of this agent. These unsatisfactory results must be attributed not so much to the disease itself, as to the peculiar individual idiosyncrasies that occasionally assert themselves vigorously under electrical treatment. There exists a class of cases of the subacute variety of rheumatism, which has served an excellent purpose in fostering the credulity of those who make of electricity almost a panacea in the treatment of rheumatic conditions.

Under any circumstances, either with or without treatment, the duration of these cases is exceedingly short, in many instances not exceeding two or three days. Now, in an attack of this kind, if one is so fortunate as to see the case *ab initio*, and electricity is employed, to electricity is given the entire credit of the cure. I well remember a perfectly honest but ignorant so-called electrician. into the mysteries of whose practice I gleaned some insight many years ago. He believed electricity to be an unfailing remedy in rheumatism, and this belief was shared by a multitude of people influenced by his success in these transient subacute cases of rheumatism which came to him in large numbers, and as soon as the first symtoms of pain manifested themselves. But there is another not infrequent group of rheumatic cases of the subacute variety in which electricity serves a most excellent purpose, allaying irritability, lessening the heat and pain in the joints, and appreciably shortening the duration of the attacks. It does more than this. From a considerable experience, I can confidently assert that by its use the severity of subsequent attacks will be greatly lessened, even if the tendency to recurrent paroxysms is not entirely destroyed. I am well aware that these cases of subacute rheumatism occurring in persons approaching middle life, or beyond it, tend in subsequent attacks to lessen in severity sometimes, but careful observation in many cases enables one to discriminate between what is and what is not the result of the treatment administered.

According to my own experience, the one satisfactory method of electrical treatment in these cases is the method of general faradization. Purely local applications, while perhaps not altogether useless, are by no means so efficient as the general methods. I have, time and time again, because of the labor entailed and the objections of patients to disrobing, confined my efforts to applications to to the joints alone, but always with results unsatisfactory when compared with the general method of treatment. Muscular rheumatism is also, in many cases, obedient to some form of electricity in a very marked degree.

We have here a condition affecting mainly the fibro-muscular structures, associated with pain and sometimes spasm of the affected part. The exciting cause is most frequently exposure to draughts, and such exposure is especially apt to be followed by severe and persistent attacks, if associated with it there has been any strain or sprain of the fibro-muscular structure. Another condition favorable to sudden rheumatic attacks is the lithic acid diathesis. If there exists defective oxidation of the nitrogenous elements of food, the waste products fails to reach the ultimate stage of urea and circulate in the blood in the form of uric acid, and it only requires a local slowing of the circulation, or a temporary cooling of an extremity, in order to have a deposit of the sharp-pointed crystals in the joints, ligaments or muscles, which cause such excruciating pain. It is unnecessary to enter into any detailed description of the symptoms of muscular rheumatism.

As a rule, although not in every case, rest greatly alleviates the pain, while movement of the affected muscules is attended by sudden spasmodic pains of a severe character. It hangs on with varying degrees of persistency, from a few days to weeks or months, and in some of the more severe cases, involving the fibro-muscular structures, it has been known to occasion years of suffering. All three forms of electricity—galvanic, faradic and static—are of value in the treatment of muscular rheumatism ; but taking the cases as we find them, I myself have not only found that static electricity is the most efficacious of all the electrical methods, but among those who have experience with the three kinds in the treatment of the disease, the same judgment I find prevails. If a case of muscular rheumatism came to me in which the pain was more of a neuralgic type, and with considerable tenderness to pressure—especially slight pressure—I should choose either the galvanic or the faradic current of high tension, preferably the former. In a certain proportion of such cases it will be found that this treatment, if intelligently administered, will give immediate temporary relief, as well as hasten recovery, while static electricity will, as a rule, afford no relief, but may even aggrevate the pain. An exception must, however, be made in favor of the static induction current, which, with its infinitely rapid succession of sparkss becomes dynamic in character and allied in its effects to the faradic current of high tension. If, however, the opposite condition of things prevails, as is more frequently the case in chronic muscular rheumatism, static electricity is capable of far greater relief than either of the other two forms.

In these chronic cases there is often but little pain on pressure—indeed, pressure often affords relief. The pain is dull and aching, even when the parts are in repose, and seemingly very deep seated. We do, in fact, see many cases where the pain becomes entirely subdued during more or less vigorous and protracted exercise. The excitation of the circulation and the heightened activity of the various excretory and secretory processes of. the body, seem for the time being to take away every remainder of the disease. The method to be adopted is the simple one of insulation and submitting the patient to the effects of the roller electrode over the affected parts. It is by no means a pleasant method of procedure, but if continued for fifteen or twenty minutes, more or less, the relief afforded is quite remarkable. I have known cases of lumbago, after suffering for weeks, to be completely and permanently relieved after a single séance of this kind.—Rockwell, *N. E. Med. Mo.*

* * *

TREATMENT OF ALCOHOLIC CIRRHOSIS OF THE LIVER.—Dr. Millard (*Wiener med. Presse,*) presented the fourth case of alcoholic cirrhosis of the liver which he has cured. The patient was a man, forty-six years of age, who had committed alcoholic excesses for years. In July of last year disturbances of the digestive track set in, and three months later a cirrhosis of the liver could be diagnosticated with certainty. The patient was placed at once upon milk diet exclusively, and received also a diuretic, whereupon diuresis set in and the œdema disappeared. Since then he has been improving gradually, the subicteric color of the face and the swelling of the liver and spleen persisting longest. The patient has increased over four pounds in weight, digests very well, and still continues to use milk as a drink. Although the liver is somewhat enlarged in volume, Millard does not hesitate to regard the case as cured ; he thinks that the enlargement will persist for a long time, and perhaps for ever, yet the disease will not return if the patient abstains from the use of alcoholic drink. Millard has cured three other cases, and in them the liver has remained enlarged, yet the patients have continued in good health. Indeed, he goes still further, and regards this as a guarantee that the cure is definite, for it appears that only those patients are to be cured who present a certain degree of hypertrophy of this organ, after the treatment has reduced the preliminary excessive hypertrophy of the same.

Doubtless the hypertrophy scarcely passed the first of the three stages into which Millard divides hepatic cirrhosis, *i.e.*, the liver had hardly entered the stage of hypertrophy with ascites. When this stage is once passed the sclerotic tissue organizes and the ascites is reproduced, in spite of all therapeutic measures and diet. In the further course of the disease the spleen increases in size and the liver decreases in volume and becomes harder until the third and last stage sets in, which is incompatible with life. Rendu does not think this division of stages is applicable to all cases, for some begin with atrophy at once. Raymond mentioned a case where with abstinence from alcohol, and a milk diet which the patient still continues, the man has been in good health since 1878.—*Cincinnai Lancet Clinic.*

VAGINAL HYSTERECTOMY IN PELVIC SUPPURATION.—At a recent meeting of the Paris Surgical Society. Dr. Terrillon spoke favorably of this extreme measure. He has operated on four cases of old-standing pelvic suppuration with hectic exacerbations and rectal and vignal fistulæ.

The first patient had been ailing for two years subsequent to a miscarriage ; parametric infiltration extended up as high as the navel, and the uterus was firmly fixed in the inflammatory deposit. Abdominal section proved useless : the omentum could not be detached, and the intestines were so firmly adherent that no attempt was made to liberate them. The uterus was at once extirpated from the vaginal side. On the twenty-eight day serious symptoms developed—owing to retention of pus behind the vaginal fistula cicatrix. The fever ceased as soon as an exit was made for the pus ; but a vagina fistula remained.

In the second case—similiar to the first—abdominal section was found impracticable, and vaginal hysterectomy was performed eight days later, with the result of effecting a complete cure.

In the third case the patient had been ill for nine years, and was suffering from a lichenous eruption which had been attributed to septicæmia ; albuminuria, vomiting and fever were present.

Vaginal hysterectomy proved very troublesome, and considerable shock followed. Nevertheless, the patient recovered, and the annoying eruption disappeared.

The fourth patient had been ill for twelve years, and had suffered from severe continuous pain and fever since two months. Vaginal hysterectomy was preformed on the left side ; the vagina cicatrized nicely, but a rectal fistula remained.

The last-mentioned case is sufficient to show—according to the author—that the operation does not always bring about a radical cure ; the first two cases, on the other hand, demonstrated that vaginal hysterectomy may succeed after abdominal section has proved of no avail. Although the operation appears especially diserable in cases where there is a well-incysted abscess, Dr. Terrillon considers it required in cases of old extensive and ill-defined suppurative processes with fistula, adhesions, and parametric infiltration of the parities.—*Merck's Bulletin.*

REPORT OF 2,012 CASES OF ALCOHOLISM OF WHICH 87 WERE MANIACAL.—Dr. T. S. Latimer, of Baltimore, read a paper before the Association of American Physicians (*Medical Record*), giving a brief history of 2,012 cases of alcoholism, less than one-half of which he had reported in a previous paper. Eighty-seven of the total number were maniacal. Nearly all the patients were arrested for drunkenness or misconduct of some form due thereto. They were what were termed by jailors as "regulars." Some of them were addicted to the use of cocaine, chloroform, and other stimulants besides alcohol. It was apparent that they were a very unfortunate class of cases to treat, having been badly fed, badly clothed, badly housed, addicted to stimulants, often suffering from other diseases. Almost invariably they begged piteously for drink, which, however, was invariably refused. None remained delirious longer than five days. The average time before they were able to do what little work that was required of them was two days. By the second night they almost invariably could sleep well. Except in a very few instances the only drug given was bromide of potassium. The good result, however, was not attributed so much to the drug as simply to the withdrawal of alcohol, which was absolute and from the very commencement. No restraint was put upon the patients farther than to keep them shut in their cells.

The conclusions were :

1. That the clinical phenomena attending the excessive use of alcohol were the direct result of the stimulant, and were not due to abrupt withdrawal of it.
2. The desire for the stimulants almost uniformly persisted.
3. That alcohol in any form or quantity was unnecessary in the treatment of such cases, and was usually harmful.
4. The absolute and immediated withdrawal of alcohol was of the first importance in treating the symptoms due to its use.
5. That forced feeding was rarely necessary.
6. That placing the patient in any kind of bands was unnecessary.—*Weekly Med. Rev.*

ABOUT MILK-TEETH.—Dr. Robert L. Dickinson speaks as follows *(Brooklyn Med. Jour)* on this much-neglected topic : If you care for symmetry of feature and sweetness of expression in the lower half of the face ; if you appreciate one great beauty in the laugh and the speech of a child, and are hurt to see stumps and gaps in the small mouth ; if you have any care on the score of punctuation ; if you are assured that tartar often causes retraction of the gums and loosening of the teeth ; if you have ever seen abscess followed by scars on the face, or roots projecting through the gum ; if indigestion and its far-reaching effects on growth and strength seem undesirable to you—and, finally, if you wish small dentist's bills for regulating and filling the second set :

Then you will follow these directions—which are essential in every detail.

1. In the early months (about fifth to twelfth) clean twice daily with soft rag and lime-water.
2. Later (about twelfth month) brush with small soft brush after each feeding.
3. Later (about fourth year) teach child to use quill pick after each meal, and then to brush carefully the most hidden crevices with lime-water, or use waxed silk instead of the tooth-pick.
4. Polish off all stains with soft pine stick and tooth-bowder.
5. Take the child to your dentist every three months, beginning at the second year, and have the cavities searched for and filled. By having the cavities filled early child suffers none during the operation.

Every tooth after the twentieth tooth belongs to the permanent set. These are all in position by the third year. The first permanent teeth are back of these, appearing usually between five and six.

Establish habits early and firmly and the child will keep them.

Forbid rich candy, fresh or rich cake and pastry and hot bread.

Let the child strengthen its teeth on sufficient crusts and meat not too tender.

WHAT TO DO FOR TOOTHACHE.—1. Rinse the mouth and the cavities thoroughly with warm water in which is dissolved all the baking soda it will carry ; failing,

1. Dry the cavity gently with surgical cotton (absorbent) made into a swab on the end of a knitting needle or crochet needle, and

3. Drop one drop of creosote or pure carbolic acid on a bit of absorbent cotton, and pack it gently into the cavity.

4. A small capsicum plaster (¼ inch square) bought at any drug-store may be placed on the gum. If the tooth is sore to bite on, No. 4 is the best.

5. Take the child to the dentist to find out what should be done with the teeth.—*Weekly Rec.*

Alcoholism and its Treatment by Strychnine.—*E. Haffter.*—In a pamphlet recently published in Tena, G. Beldau discusses all the papers, hitherto published in Russia and France, on strychnine treatment of alcoholism. Of peculiar interest and importance are the animal experiments performed by S. W. Jaroschewski, which demonstrate that in dogs strychnine possesses the property of neutralizing the inebriating action of alcohol, and that dogs that are given strhchnine and alcohol at the same time, are under incomparably better vital conditions than dogs taking alcohol alone. The latter died spontaneously, without an exception, while the former (excepting one who died from strychnine poisoning) continued living.

The result of experiences in man is the following:

1. Strychnine is a physiologic antagonist of alcohol, and treatment of alcoholism by nitrate of strychnine gives more or less favorable results.

2. The best results are obtained in dipsomaniacs, less good results in chronic drinkers.

3. The higher the doses, and the longer the treatment is continued, the more satisfactory is the result. Luton administered rm. g0.005 subcutaneously, or grm. 0.03 internally, 3 times daily; Korona, grm. 0.005–0.01! once daily, and noticed gradual disappearance of the longing for alcohol after a few injections.

4. Alcoholics support disproportionately large doses of strychnine without secondary phenomena, without accumulative effects.

5. It appears that strychnine has the property of eliminating the craving for alcohol in the potatory.

The author engaged in experiments in the Clinic of Tena abstains for the present from an expression of his own views on the value of the remedy, promising some early communications on the subject.—*Pac. Rec. of Med. and Surg.*

Camphoric Acid for the Night-Sweats of Pulmonary Tuberculosis.—Probably there is nothing so unpleasant or aggravating in tuberculous patients as the profuse sweating that occurs either in the morning or during the entire night. The depression following it does not seem to be due to the sweating itself, but rather to the eects of a gradual increase in the quantity of carbonic acid gas in the blood, incident to the difficult interchange of gases in consequence of the pulmonary affection. It is well known that in normal respiration the blood does not contain so continuously a high percentage of carbonic acid gas as will cause a less sensitive condition of the centres governing respiration. But in pulmonary tuberculosis, when the energy used in the daily exertions, from excessive coughing or other physical causes, more than exceeds the supply of energy and nutrition that can be furnished by the body, the respiratory centres are greatly depressed, and are not stimulated so quickly by a percentage of carbonic acid gas that normally would affect those centres. The centres presiding over the function of the sweat-glands, not being affected by the physical causes, respond to the increased stimulation, and cause them to pour forth their secretion abundantly. The therapeutic mode of combating this functional perversion would seem to be to use such a drug as shall stimulate the respiratory centres, and thereby cauze the elimination from the blood of more carbonic acid gas, and in this indirect manner act as an anhidrotic.

Camphoric acid seems to effect this object with less derangement and more satisfactory and lasting results than any other drug. This remedy is best given in doses of twenty grains from four to six hours before the period of sweating is expected. the best method of administration is dry on the tongue, and washed down with a little water. The taste of the drug is not unpleasant; neither does it produce the gastric irritation so frequently experienced with many medicinal agents used under like conditions.

Cases are given in detail illustrative of the effects of the remedy.—*Phil. Med. News.*

Adenoid Vegetations.—Adenoid vegetations in children are removed by the following simple method, given by Dr. Dessar (*Archives of Pediatrics*, May, 1892): The experience of the author has taught him that adenoids in children are best removed in a series of operations without an anæsthetic, rather than in a single sitting under anæsthesia. He seldom has to resort to any instrument outside of three sizes of Lowenberg's forceps. The child is placed either in a chair or on the mother's lap, and the arms held firmly, the forceps are then quickly introduced into the vault of the pharynx, pushed up as high as possible, the blades widely separated, then closed, and the sheaf of the instrument slowly forced downward. If too much resistance is encountered too much tissue has been grasped. Much harm may be caused by improper or poorly constructed instruments. After one or two sittings children usually become more courageous and the mouth-gag is not necessary. Sittings are continued until digital examination reveals a smooth surface on the vault of the pharynx. Adenoid tissue on the lateral walls and in

Rosenmueller's fossæ are to be scraped off with a lateral cutting curette. The author has devised two small instruments, made by Reynders, one edge being blunt, and made to cut one from right to left, and the other from left to right. The advantages gained in operating on children in the foregoing manner are: 1. The absence of disagreeable symptoms following the use of an anæsthetic. 2. The absence of profuse hæmorrhage. 3. The absence of pain after the operation, and of bronchitis brought on by blood entering the bronchial tubes, as so often happens after anæsthesia. 4. Short time consumed in operating. 5. The consent of parents objecting to an anæsthetic.—*Med. Rec.*

THE USE OF DIGITALIS AND STROPHANTHUS.—Dr. James Little, writing for the *Birmingham Medical Review*, after pointing out that digitalis is the most important cardiac remedy in the materia medica, goes on to compare, in an interesting manner, its power with that of strophanthus. He says, "Strophanthus shows its power in the same kind of cases that digitalis, when the systoles are frequent and marked, but is less useful when the pulse is regular and there is weakness of the left ventricle." He thinks that the tincture of strophanthus, like the tincture of digitalis, should not be mixed with water until just before it is swallowed. He also believes that when strophanthus is given in this form, fifteen minims every four hours is not too much. He concludes:

1. That digitalis is the better drug of the two because it is more frequently useful.

2. If slowing and steadying of the heart has been produced by digitalis, is well to keep up its action by occasional doses.

There are some patients whom digitalis sickens, and a smaller number in which it seems to fail to bring about an increase in the force of the heart. Under these circumstances strophanthus may prove itself useful. Patients who have widespread thickening of their smaller arteries are sometimes benefited much more by strophanthus than by digitalis.

4. Strophanthus is much more rapid in its action, but is not suitable for prolonged use.

He has also found that bromide of potassium in small doses, given twice or thrice a day, sometimes serves to quiet disturbed cardiac innervation.—*Therapeutic Gazette.*

SUCCESSFUL TREATMENT OF MEMBRANOUS CROUP WITHOUT EITHER TRACHEOTOMY OR INTUBATION.—The class of cases to which I refer are of laryngitis with fibrinous exudation and not complicated by diphtheria. My experience before February, 1891, covering a period of nine years, was to have treated medicinally eight cases, six of which died, showing a mortality of 75 per cent. I condemn tracheotomy and intubation in true croup, as the same objections obtain in both, viz., that the accumulation of muco-pus in the lower part of the trachea and in the bronchi is lost sight of. Paralysis of the posterior crico-arytenoid muscles, preventing dilatation of the glottis in inspiration, is a symptom no doubt relieved by tracheotomy and intubation, but the other paramount elements of danger in the case, as pneumonia, capillary bronchitis, accumulation of muco-pus, feeble expiratory efforts preventing expectoration, due to general debility and exhaustion, are *unremedied.*

The treatment I have used since February, 1891, is based upon the allaying of inflammation about the site of the membrane, effecting the separation of the membrane, lessening the formation of new membrane, effectually controlling laryngeal spasm, and sustaining the strength. I use asafœtida by suppositories to allay spasm and to give needful intervals of quiet, restful sleep, and consider it a valuable and much overlooked remedy in membranous croup.

For the other conditions or symptoms I used ammonium chloride, given in syrupy mixture without water, as the addition of water makes it unpalatable to children.

For a child eleven months old the following prescriptions are ordered:

B.—Ammonii chlorid., ... ʒj.
Syr. tolutan., ... f ℥ij—M.
Sig.—Half a teaspoonful every two hours.

R.—Asafœtida pulv., ... gr. xvj.
Quininæ sulph., ... gr. iv.
Codeinæ, ... gr. ss.
Olei theobromæ, ... gr. cxxx. M.
Fiat suppos. No. viij.
Sig.—One every four hours.

Four cases of recovery are reported.—*College and Clinical Record.*

DIFFICULTIES OF DIAGNOSIS IN DISEASE OF THE AORTIC VALVES.—The group of cases of uncomplicated aortic insufficiency is to that of aortic insufficiency, plus mitral stenosis, as 88 to 39, But from the existence of the usual "aortic diastolic" murmur and of a pre-systolic thrill or murmur, or both, the presence of the two lesions cannot be inferred. Several cases are cited in which a presystolic murmur was present, but in which aortic insufficiency was proved, and mitral stenosis disproved, by post-mortem evidence. The differentiation between the two lesions in exceptional cases reguires careful consideration of all the physical signs, and the evidence afforded by the cardiograph is of high importance. A case is reported in which from the clinical evidence it seemed probable that there was a conjunction of the two lesions, the mitral stenosis being slight. The autopsy showed aortic insufficiency; no mitral stenosis. Two explanations are possible: (*a*) the lifting force of the current of blood impinging on the under surface of the mitral curtain might so obstruct the current from the auricle as to create an impediment at the end of each diastole, or (*b*) the vibrations might be directly communicated by the regurgitant stream from the aorta to the mitral curtain.

A case is also reported in which the murmurs of aortic and mitral stenosis were present. The autopsy showed mitral stenosis, the thickened, calcareous material about the mitral orifice projecting so far into the conus of the ventricle as to constitute a real obstruction, although the aortic valves were normal.—Sanson, in *Liverpool Medico-Chiurg. Journal.*

AMENORRHŒA OF SCHOOLGIRLS.—Dr. T. A. Reamy in discussing the amenorrhœa of anæmia, common to schoolgirls, says: (1) She must leave school, and must not even study at home. (2) She must spend several hours each day in the open air, either walking or riding. In winter she must, of course, be warmly clad; but must wear no sheepskins or other chest-protecting pads. Standing in the open air, she must be induced to breath deeply with the mouth closed; this should be done for at least fifteen or twenty minutes, and be repeated at least twice a day. Nothing that can be done will more rapidly improve the character of her blood. (3) She must sponge her extremities and body each morning on arising from bed. The water must be of the temperature of the room, and she must practice friction freely with an ordinary towel. (4) She must drink plenty of milk and eat plenty of beefsteak. (5) She must take small doses of iron, combined with some bitter tonic, three times a day. Improvement may be somewhat slow, but if this course is faithfully carried out a perfect cure will result, and her education may then be finished.

If this course or its equivalent be not followed, these cases will go from bad to worse, and finally die of pulmonary tuberculosis.—*Arch. Gyn. Obs. and Ped.*

TYPHLITIS.—Dr. T. H. Maulsy, in an article on "Typhlitis," in the *Medical Progress*, epitomizes it by saying: "I think we may, with our present knowledge of typhlitic disease, conclude something as follows:

"1. That, as typhlitic disease is seldom seen except in the male sex, and then, as a rule, without any history of traumatism or fæcal impaction, it must be regarded as a constitutional disease, probably microbic, with a local manifestation.

"2. It is always located within the peritoneum in its incipient stages, but never within the peritoneal cavity, or extra-peritoneal—outside the parietal peritoneum—until by secondary changes, the temporary pyogenic wall has ruptured and leakage is permitted.

"3. By reaching the imprisoned pus from behind, less mutilation of tissue is entailed, and a vent is made without opening the general peritoneal cavity.

"4. Until it is proved that pathological processes always commence in, and are confined to the appendix alone, or that the opened appendix is come upon in operation, appendixectomy can not be regarded as either a prophylactic or curative proceeding."—*Times and Reg.*

GLYCERIN IN THE TREATMENT OF HEPATIC COLIC.—At the meeting of the Académie de Médecine, March 8, 1892, Dr. Ferrand read a paper on this subject, of which the following are his conclusions;

1. Glycerin administered by the stomach is absorbed as such by the lympathic vessels, notably by those which proceed from the stomach to the hilus of the liver and to the gall-bladder, it is found even in the blood of the subhepatic veins.

2. It is a powerful cholagogue and a valuable remedy in hepatic colic.

3. In large doses (20 to 30 grammes—5 to 7½ drachms) glycerin cuts short the paroxysm at once

4. In smaller doses (5 to 15 grammes—1¼ to 3¾ drachms) glycerin taken daily in a little alkaline water, prevents the return of the attacks.

5. Glycerine although it is not a lithontriptic, is, however, the remedy *par excellence* for biliary lithiasis.—*La France Médicale.*

THE THERAPEUTIC VALUE OF SUPPURATION.—Fochier has observed that in some cases of puerperal infection, when there is no important appreciable lesion, a sudden amelioration not rarely takes place coincidently with the appearance of a focus of suppuration in the iliac fossa, in the breast, in the subcutaneous cellular tissue, or about a joint. The thought suggested itself that in suitable cases the establishment of suppuration by the subcutaneous injection of essence of turpentine might be a rational procedure; and in a number of cases, successful results were by this means obtained. Governed by the same principle, Lepine and Dieulafoy each employed the injections in a desperate case of pneumonia, with a fortunate termination. About fifteen minims were injected in each situation selected. Suppuration took place in the course of a few days, but it was unattended with elevation of temperature, and the pus was aseptic.—*L'Union Médicale.*

THE BEST WAY TO GIVE COD-LIVER OIL, in tuberculoesis, according to Professor Charteris, in this *Lancet*: It should be prescribed in a teaspoonful dose at bedtime for three successive nights, then a dessertspoonful at the same time.

On the sixth and seventh days it should be taken in a dessertpoonful dose after dinner, and at bedtime, and afterwards in a tablepoonlful dose after each meal. If so prescribed it does not cause eructation or nausea, and the doses may be increased in accordance with the wishes of the patient until the end of the fifth week, when it should be stopped for a week, and resumed. With each dose of the oil five grains of hypophosphite of lime disolved in a little hot water should be taken. Thus administered, these medicines notably increase the strength of the patient, and returning health is evidenced by increased weight. If circumstances permit, and if the patient be young a sea voyage is of inestimable advantage in maintaining the progress made to recovery, and if the voyage be to New Zealand and back in many cases the patient's health is established. I firmly believe that the hypophosphite of lime is the only form of hypophosphite of any value in tubercular disease.—*Med. Rec.*

EPILEPSY AND ANTIRABIC INOCULATION.—Our Paris Correspondent writes: The somewhat premature announcement made in the daily papers that a cure for epilepsy had been discovered at the Pasteur Institute created a great sensation in the medical and scientific world. At the meeting of the Academy of Science, held on the same day, M. Pasteur was besieged with questions concerning the new discovery. His answers were not affirmative. "Time," "patience," "perhaps yes," "perhaps no," were among his frequent utterances, and the distinguished *savant* appeared annoyed that publicity should yet be given to the subject. Professor Charcot, interviewed by the *Temps*, has stated that it is true that M. Pasteur has for some years directed his attention to the treatment of epilepsy by antirabic vaccine. An epileptic patient is now being treated by it and is carefully watched; the epileptic attacks have disappeared, but the point to be ascertained is whether this youth is epileptic or hysteric. He has proposed to M. Pasteur to place at his disposal undoubted epileptic patients. These patients, subjected to M. Pasteur's treatment, would furnish interesting facts, but no conclusion could be arrived at until some months or years had gone by; the suppression of epileptic attacks during a few weeks or even a few months is not a certain indication of cure. M. Charcot expresses his regret that positive assertions concerning this remedy had been published. M. Pasteur has also been interviewed, and expressed himself much annoyed at the indiscretion of the press. Had he made so important a discovery, he said, he would at once have made it known by a communication to the Académie de Médecine. It is interesting to note, in connection with the experience thus far recorded of M. Pasteur in the cure of epilepsy by rabic inoculation, that the *New York Medical Record* of May 14th states that an epileptic boy who had been bitten by a dog underwent a course of antirabic treatment in the Chicago Pasteur Institute in August, 1890. Since then he has had no further epileptic seizures.—*Brit. Med. Jour.*

ON THE PREVENTION OF LACERATIONS OF THE PERINÆUM IN PRIMIPARÆ.—The experience gained in a large midwifery practice here for some years has convinced me that the following suggestions, if thoroughly and carefully attended to, will, in the large majority of cases, allow of the passage of the fœtal head without laceration of the perinæum, and this is borne out by the fact that in primiparous cases where the child was born before my arrival I have invariably observed some degree of laceration of the perineal tissue. I do not consider that the mere "supporting" of the perinæm during the birth of the head is, *ipso facto*, sufficient to prevent laceration; it is but a factor in the result desired, and is beneficial by delaying any too rapid advance of the presenting part. The chief causes of rupture of the perinæum are undoubtedly—

1. Too rapid advance of the presenting part before sufficient dilatation of the parts has had time to take place.
2. Abnormal rigidity of the parts.
3. The outlet is to small or the presenting part too large.

As the presenting part reaches the perinæum the parts are expanded in all directions, and, therefore, two fingers, well anointed with antiseptic uterine lubricant (Summers'), should be used during or directly preceding the pain in order to assist dilatation by expanding the perinæum in every direction. During the intervals between the pains a sponge wrung out in warm water aseptic with carbolic acid should be applied to the perinæum, the result being some softening of the parts by relaxation of the soft parts, and in addition this application is grateful and comforting to the patient and facilitates the removal of any mucous or excreta during the passage of the presenting part. Supposing the head to present, as is more commonly the case, as labor progresses pressure should be exerted upon it in a direction to promote flexion of the chin upon the sternum, and this manœuvre not only places the head in a more favorable position for passing the perinæum but prevents its too rapid advance before the perinæum is sufficiently dilated to prevent any rupture of the same.—Charles H. Miles, L. R. C. P. Lond. *In Hosp. Gaz.*

THE MOON AND MADNESS.—The relation of the moon to insanity is thus referred to by Griesinger in his well-known work upon Mental Pathology and Therapeutics: With regard to the influence of the moon, if not on the origin, at least in aggravating and modifying insanity in its course. This influence is denied by the great majority of medical psychologists, and that pathology is derided which, for example, would ascribe the periodical attacks of mania to the influence of the stars, because they coincide with certain regular changes in the heavens. Because of this the influence of the moon's light upon the insane should not be denied, for even in healthy persons, the light of the moon can peculiarly affect the course of the thoughts, give rise, for example, to ardent elegiac ideas, readily disposing to sentimental poetry. In the insane, who are more powerfully and differently affected than the healthy by various sensible impressions, this may, with the absence of sleep, the view of the full and brilliant moon, the uncertain light, the fleeting shadows of the clouds, combined with the stillness of the night, or the confused murmurs which then float through the asylum, indeed create still greater impressions, more violent emotions, various hallucinations, etc. Esquirol prevented the agitation which was regularly remarked in several patients at the time of full moon by hanging curtains at the windows.—*Med. Rev.*

Acne.—In the clinic, for a case of acne vulgaris in a young woman aged nineteen years, Dr. Henry W. Stelwagon gave the following treatment: At night wash the face with soap and water, and then steam the face or wash with as hot water as can be borne. After doing this, make a thorough application of the following lotion so that the sediment will be well spread over the face:

℞—Zinci sulphat., ...	ʒj.
Potassii sulphurat., ...	ʒj.
Aquæ, ...	℥ij.
Alcoholis, q. s., ...	℥iv. M.

Dissolve the salts separately, each in ʒj. of the water and then mix with the alcohol. The bottle should be well shaken before the lotion is applied, as the sediment is the part that does the most good.

The patient's bowels should be kept freely open and all secretions active. Also give internally sulphide of calcium in doses of $\frac{1}{10}$ of a grain in gelatine-coated pills three times a day.—*Ibid.*

Treatment of Chlorosis by Bleeding and by Diaphoretics.—(Dr. Schubert, *Rev. de Thérap. gén. et Thermale.*)—The treatment may seem paradoxical, however, the author has many times established a clear amelioration in chloretics following epistaxis or hæmatemesis. Dyes was the first to restore this method. Having been called to attend a woman with grave chlorosis, whose death was hourly expected, Dyes, after considerable hesitation decided to take about three ounces of blood from a vein. The effect was striking; at the end of some days she was greatly improved; after five weeks of treatment her face had regained its color, and since then, she has given birth to four children. Wilhelmi has published 30 cases of chlorosis treated by bleeding, and he concluded that the more nearly the chlorosis approaches the typical form the stronger is the indication for the operation and the more striking the results. Schultz has, for a score of years, employed diaphoretics in the treatment of chlorosis, combined with laxatives and blood-letting. After the bleeding the patient should rest in bed for 24 or 48 hours and be given acidulous drinks and be allowed to eat at will. The consecutive effects are according to Schubert, abundant perspiration, a feeling of hunger, sleep, and a sense of well-being. At the time of bleeding the patient should be lying down in bed; immediately after, favor the diaphoresis.—*N. Y. Med. Abs.*

Treatment of Abortion.—When abortion is threatened, Dr. W. W. Seymour, *Am. Gyn. Journal*, keeps the patient in bed, gives full doses of opium, and if necessary fluid extract of black haw. In the early stages this usually suffices. To control the hæmorrhage he uses a tampon of iodoform gauze, as it can be left in place longer without danger than any other material; however it is never allowed to remain longer than twenty-four hours. When abortion becomes inevitable he cleans out the uterus thoroughly. He precedes examination by a thorough antiseptic douche of the external parts as well as the vagina. If necessary he dilates the uterus with a mechanical dilator, never with tents, introduces a Martin's curette or a polypus forceps and removes its contents thoroughly. The success of his treatment is demonstrated by his record of one hundred and fifty cases, in which there was no death and no septic condition developed after the operation.—*Western Med. Rep.*

Sulphur in the Treatment of Chlorosis.—Prof. Hugo Schulz (*Med. Neuigkeiten*, No. 17, 1892) recommends sulphur in cases of pure chlorosis where iron has no action. In such cases the general condition is much improved by the administration of sulphur. After this drug has been given for a time the use of iron may be begun again and successfully carried out. On the contrary, it is not well borne in catarrhal and inflammatory states of the gastro-intestinal tract. The form of administration is:

℞—Flowers of sulphur, ...	ʒ ijss.
Milk sugar, ...	ʒ xxv.

Sufficient for ten powders. A knife-pointful three times a day.—*Cin. Lancet-Clin.*

profession and their representatives in the Medical Council."

"This was well enough, so far as it goes, but it comes far short of what was expected. The desires and objects of the supporters of Dr. Meacham's proposed amendment to the Medical Act, which was introduced into the Ontario Legislature at its last session, are well known to the members of the Council; and yet they do not consider it worth their while to express an opinion on any one point raised."

If the writer of the above will read the address of the late President of the Council, Dr. Williams, which was delivered to, and endorsed by, every member of the Council present at its first session in June last (See CANADA LANCET, July, 1892, p. 340, *et seq.*) he must, we think, admit that they have considered it "worth their while to express an opinion on any one point raised."

It appears to us, moreover, that Dr. Bray's motion is a wise, temperate, and practical suggestion, by which the differences at issue may be adjusted, with dignity to both parties. Any amount of "resolving" and "discussing" on the part of the Council, would have been of worse than no avail, had its opponents not been present to take a part in the discussions, and to have their voting weight on the resolutions. Therefore, we say again that Dr. Bray's motion was, in its place, wise, temperate and practical.

GOLDEN RULES OF SURGICAL PRACTICE.—*Continued—(Times and Reg.):*

GENERAL.—Never use a hypodermic syringe in a secondary syphilitic patient.

Never permit a wet-nurse to be employed without examining into her history and state of health.

Never permit a healthy wet-nurse to suckle a syphilitic child, or child of syphilitic parents.

Never be hasty in suspecting "malingering" in any disease, certainly never in head injuries.

Never neglect to carefully bandage the *entire* limb if you have encircled it at one point to keep up pressure upon a wound.

Always shampoo gradually and with caution, as early as seems prudent, and at first with prolonged intervals of rest.

Remember three drugs are tolerated well in proportion to their need, viz.: Opium, mercury, and iodide of potassium.

Always inject ergotine or mercury into muscles, but morphine or brandy under the skin.

Never inject morphine without first testing the urine for albumen or a low S. G.

Never leave a sprain too long at rest. Too long rest is by far the most frequent cause of delayed recovery after injuries of the joints.

Avoid cathartics, deprivation of nourishment, loss of blood by incision in the broken down.

Be careful of abstracting blood from a drunkard or a child.

Be careful of opium in delirium tremens when the pupils are contracted.

Never examine any female under any circumstances without having first obtained her consent, and in the presence of one (or more) reliable witness.

Never examine any female prisoner without consent—without cautioning her that the examination will be taken down in evidence, and without a female companion being present.

Never administer chloroform without a third person being present, nor allow it to be administered in your house—nor until all artificial teeth have been removed.

Do not form hasty opinions, and if you have formed a false opinion admit your error at once.

BACTERIA IN WOUNDS AND SKIN STITCHES.—Two gentlemen working in Kelly's clinic (*Johns Hopkins Hosp. Bull.*) at the Johns Hopkins Hospital, made careful examinations of the stitches and secretions in thirty consecutive cases of cœliotomy, and in fifteen cases of perineorrhaphy, and as a result present the following:

A wound at some time of its existence always contains organisms. They occur either on the stitches or in the secretions. The number of bacteria is influenced by the constricting action of the ligatures or drainage tube, or anything interfering with the circulation of the tissues.

The virulence of the organisms present will influence the progress of the wound.

The body temperature is invariably elevated if the bacteria are virulent; and, indeed, in cases where many of the less virulent organisms are found, almost without exception, there is some rise of temperature.

Different suture materials offer different opportunities for bacterial development. The catgut suture would seem to be the best adapted to their growth. In the event of the presence of the streptococcus pyogenes or staphylococcus pyogenes aureus infectio, such cases should be isolated as far as possible, to prevent the infection of subsequent cases, which almost invariably follows where isolation is not practiced.

Undue constriction of the tissue by ligatures must be avoided, if the tissues are expected to resist bacterial invasion. Such bacteriological examinations as we have just reported teach us the importance of securing an aseptic field of work and technique, as the introduction of a virulent organism under the above circumstances would be productive of great harm.

Salicylate of Bismuth in Infantile Diarrhœas.—In the *Meditz. Obozrenie* (*St. Louis Med. and Surg. Jour.*), Dr. Mikhnevitch emphatically recommends the treatment of protracted diarrhœas in children under two years of age by the internal administration of salicylate of bismuth, after the formula:

R—Bismuthi Salicylici. . . . gr. xxiv.
Gummi Arabici. . . . . ʒ i.
Sacchari albi. . . . . ʒ iss.
Terendo adde
Aquæ destillatæ. . . . . ℥ ij.
Fiat lac. Dum adde
Aquæ destillatæ. . . . . ℥ vi.—M.

Sig.—To shake well before using. To give from one to two teaspoonfuls from three to six times a day.

Each teaspoonful of the mixture contains about one-half grain of the salicylate, which represents a normal individual dose (repeated three or four times daily) for an infant aged from six to eight months. The bottle should be kept in ice or cold water (to prevent nausea, sometimes produced by the salicylate). In emaciated children the remedy, in largest doses, is apt to induce profuse perspiration, accompanied by general weakness. Hence, as soon as the sweating appears, the dose should be correspondingly diminished. In recent cases of a few days' standing the salicylate is useless.

Salol for Gonorrhœa.—Dr. E. C. Underwood says (*West. Med. Rep.*) that salol can reduce the duration of gonorrhœa to the lowest limits. The method consists in the regular employment of from forty to sixty grains of salol through the day. I order my patients to have four doses of from ten to fifteen grains each, taken immediately on rising in the morning, at 11 o'clock a.m., 4 o'clock p.m., and the last thing on retiring to bed at night. This I ordered in a powder or compressed tablets. Having known that many of these tablets passed through the intestinal canal without being absorbed and in the form they were administered, I am now using the drug in the powder form. It is tasteless and is not complained of by patients. The dose is begun, unless unless this patient shows that the drug disagrees with him, with sixty grains a day, continued until the discharge has become very meagre. Then it gradually lessened. The author claims that better results follow this method than any other.

The Treatment of Pneumonia.—From an extensive study of the mortality of pneumonia under different modes of treatment, Reed, *Therapeutic Gazette* (*Med. News*) concludes that water, locally applied, either as a wet-pack or as the bath after the method of Brand, is the most efficient single therapeutic measure of acute pneumonia. In the first stage of the disease, veratrum viride or aconite can accomplish more than any other drug; and in the second stage the same is true of digitalis. A combination of one of these cardiac sedatives with opium and diaphoretics constitutes a safe and successful internal treatment in the first stage, being capable of aborting the disease if the administration is begun near the onset and is repeated at short intervals, day and night. Venesection, though a most efficient procedure in the treatment of pneumonia of sthenic type and, judiciously employed, considerably more successful than expectant measures, is no longer an indispensable resource in managing the disease, as other remedies have been found to accomplish the same results more surely and more pleasantly.

The Use of Chloral in the Treatment of Boils.—M. Sphen., *Bull. Gen. de Therap.*, recom- treatment the use of chloral externally in this mends very highly, as far superior to all other troublesome class of effections. He directs that the boil be kept covered with a tampon of cotton-wool soaked in the following solution.

℞.—Chloral. hydrat. . . . . . ʒiiss.
Aquæ,
Glycerin. . . . . āā fʒv.—M.

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Original Communications.

POST NASAL ADENOIDS.

BY J. D. THORBURN, M.B.,L.R.C.P. AND S., EDIN.

Late Superintendent of Hospital for Consumption and Diseases of the Throat, Manchester, England.

Mr. President and Gentlemen :—

So much has been written upon post nasal adenoid vegetations, that it was with some feeling of diffidence I selected this subject for my paper, but it is one of such importance, especially to us Canadians, that I deemed it worthy to be brought before the Association. Post nasal adenoids were known to Hunter, but were first described by Wilhelm Meyer, Copenhagen, who gave a description of the ætiology, structure and the symptoms arising from their presence. Since that time many writers of greater or less worth have contributed much upon the same subject.

"Adenoid vegetations consist of a collection of hypertrophied lymphoid structures found as a rule in young children and infants, more rarely in adults, congenital in some, developed in infancy in others, and showing a tendency to disappear at puberty." The etiology of these true hypertrophic changes, in the lympathic glands, is not well understood.

From a study of cases we are forced to admit, that scrofula, tuberculosis, syphilis, rheumatism and the various exanthemata are all predisposing causes. Many authorities deny, however, that the above mentioned dyscrasia influence the formation of the growths, and explain their presence as being due to inflammatory changes, resulting in a tendency to hypertrophy of the glandular and surrounding tissues lining the post nasal space.

"When, from any cause, we have partial occlusion of the nasal fossæ, so long as respiration is conducted through the nose, there is, of a physical necessity, a diminution in the barometric pressure, behind the seat of stenosis. This inevitably results in more or less over filling of the blood vessels. which in its turn leads to hypernutrition."

The inflammatory changes of this region being increased by primary catarrhal changes, characterized by repeated attacks of acute rhinitis, hypertrophy of pre-existing elements is nowhere more conspicuously seen than the case of post nasal adenoids.

The modus operandi of the diminished barometric pressure behind the stenosis is as follows :—As you know when air passes behind an obstruction into a cavity, it becomes rarified ; this rarefaction of air has a suction power, which is influenced by each respiratory act, in such a manner as to cause a drawing upon, and then a more or less relaxation, of the tissues.

The bony structures cannot be influenced in a direct manner, therefore the soft parts are subjected to a greater suction-pump action, in order to compensate for the inability of the hard frame work. In time the blood vessels running through the yielding tissues become permanently dilated, and the increased blood supply leads in turn to hypernutrition and true hypertrophy.

The most common cause of the stenosis are (*a*) congenital osseous malformations, (*b*) small nostrils, (*c*) deflected septa, (*d*) septal spurs, (*e*) hypertrophic rhinitis, (*f*) simple engorgement of tissue covering more especially the inferior turbinated bones, (*h*) thickened septa, (*i*) then again adenoids are found associated with atrophic rhinitis and cleft palate.

Bosworth says "as a rule the seat of obstruction is situated near the anterior part of the nasal fossæ, and that in the case of deflected septa we often find the V shaped contraction of the superior maxilla." After the above explanation one can appreciate why the vault of the pharynx is the seat of adenoid vegetation, accepting the barometric theory as being the true one in the great majority of cases ; still there are other causes to account for the presence of adenoids which shall be mentioned later on.

Not being satisfied with the various classifications of adenoids as given by different authors, I have attempted a classification for myself, based upon clinical experience and have found it of some service, both as regards diagnosis and treatment, and hope it will prove of value to others.

First: Those resulting from nasal stenosis, which I again sub-divide into (*a*) soft, (*b*) firm, (*c*) mixed.

A.—The soft variety occurs in young children, subjects of a slight nasal stenosis. The dimensions of the growth and shape vary from day to day, at one time being small and flat, at another large, and sending down finger-like prolongations; these changes are no doubt owing to transitory œdema of the tissues.

Associated with these changes in size and shape, we find a corresponding increasing and decreasing nasal stenosis. From the appearance, structure and behaviour of the growths one would almost be justified in calling them a polypoid form of the disease. It is this variety that gives rise to the repeated attacks of acute rhinitis and otorrhœa in young children.

B.—Firm: These obtain in a totally different type of patient in contradistinction to class 1. They are found in healthy robust subjects, are slow in growth, firm in consistence, more regular in outline, showing a tendency to lateral and downward extension; do not vary in size from day to day. There is a marked nasal obstruction, and as a rule greatly enlarged tonsils. The best defined symptoms indicating their presence is facial deformity, noisy breathing and snoring, and if far advanced we find well marked pigeon breast.

C.—Mixed; Fill in the gap between one and two, both as regards the structure and symptoms.

Besides the above classes I wish to draw your attention to at least two other varieties which have certain pecularities of their own, not so much in structure as in ætiology and symptoms. We find in a certain number of young adults well marked adenoids of large size, localized in the vault of the pharynx, firm in consistence; upon post rhinoscopic examination, the growth instead of presenting a greyish appearance presents rather that of a blueish red, the same as seen in passive inflammation of mucous tissue. Associated with this form are enlarged tonsils, showing on their surface indications of former inflammatory attacks. Now it has been proven beyond doubt by Lennox Browne and others that these attacks are due to rheumatism. This being the case with the buccal tonsils, it must of necessity be the same with the pharyngeal tonsil, which is similar in structure and functions.

The following history will go to prove my statement. H. J., æt. 15, school boy, healthy, but has a history of growing pains (rheumatism), and slight rheumatic attacks, father and mother both subject to rheumatism Previous history. Except for above attacks and also a tendency to "ulcerated throat," he has enjoyed the best of health. Did not snore as a child, but does now. Present attack began with a severe cold, complained of rheumatic pains throughout the body; these lasted three days, when the throat became involved in a right sided tonsillitis, followed by same condition on the left side. Leaving there, the pharyngeal (Luschska) tonsil was attacked; this jumping from place to place lasted three weeks. After a tedious convalesence the patient recovered, but now has a permanently enlarged pharyngeal tonsil. This is one of many cases that have come under my notice.

The fifth and last variety is that of the chronically enlarged pharyngeal tonsil, the outcome of repeated attacks of inflammation caused by the presence of the vegetable parasite, leptothrix buccalis; and occurring chiefly in young adults. This parasite shows its presence in the form of small white or yellowish spots the size of millet seeds, covering a cheesy mass, which when pressed and squeezed between the fingers emit a very offensive odour. These masses are to be seen studded over all the nostrils and even on the base of the tongue. The patient is made aware of this presence from their taste, which is quite as bad as their odour.

These masses cause localized inflammation in the substance of the affected part, and in time a true hypertrophy of the same. The symptoms arising from their presence are more of those of a post pharyngeal catarrh than of obstruction. The patient also hawks up from time to time some of the cheesy masses. Race or climate has but little influence over the growth of adenoids. The only exception in this rule is in the Hebrew race who are prone to adenoid formation. Before describing the general symptoms of adenoids it would be well to refer to the functions of nasal respiration.

1st. Air passing through the nostrils is brought to the temperature of the body. 2nd. It is moistened and filtered. 3rd. Gaseous exchange takes place. Any interference of these functions would tend to lead to bronchitis, croup, asthma and other diseases of the respiratory tract.

Symptoms.—In the infant the inability to feed when not due to "tongue tie" is generally owing to the presence of adenoids. In older children we have the well marked adenoid expression of countenance due to the linea labialis extending downwards from the angle of the mouth until it becomes lost in the lower portion of the face. An open mouth, stupid expression, pinched nostrils, go to make up the picture. Snoring when asleep is a very prominent and distressing symptom; when there is no actual snoring the patient sleeping with his mouth open has his rest disturbed, and in the morning his lips are dry and parched. Inability to pronounce various letters, as the explosive labial, is another almost pathognomonic sign, as poat for boat.

Attacks of deafness are common; these may be due to a simple or a purulent cartarrh of the middle ear or to an indrawing of the drum head. The sense of smell and taste are impaired, headache is complained of, as well as blood escaping from the back of the mouth. Time will not permit me to enumerate the many other symptoms caused by these growths.

Examination of the mouth and throat shows almost certain indications of the presence of adenoids; higher up in the vault inspection we see enlarged buccal tonsils, and on the back of the pharynx œdematous solitary glands standing out from the surrounding tissue. The next thing we notice is the remarkably small space between the soft palate and post pharynx. If possible the next step in verifying the diagnosis is examination by means of the post rhinoscopic mirror, a difficult procedure when adenoids are present. If unable to see them, pass a guarded finger up behind the soft palate and ascertain by feeling their absence or presence. Upon withdrawal of the finger it is frequently found covered with a bloody mucus.

Treatment.—I will not say anything about the medical treatment as applied to the removal of the growths, inasmuch as I do not consider it worthy of attention. Surgical interference affords us the only means of getting rid of the disease. In children when the growths are soft my mode of treatment consists in scraping away the tissue with the finger-nail, no anæsthetic being required. In growths of firmer consistency one of the various forms of sharp spoons, forceps, or curets are to be recommended, according to the locality of the growths and the temperament of the patient.

In my practice chloroform or ether are never used unless absolutely necessary, and that occurs in very few cases; cocaine has no anæsthetic effect upon the diseased tissue. The after treatment consists in insufflating boric acid through either nostril. I never use a nasal wash until some days after the operation, owing to the tendency of washing in to the eustachian tube some of the *debris*. Place the patient in bed and do not allow him to take of either too hot or too cold food. After the wound is healed remove the obstruction or exciting cause.

OPERATION FOR THE RADICAL CURE OF HERNIA.*

BY THOMAS R. DUPUIS, M.D., M.R.C.S., ENG.

Professor of Clinical Surgery in the Medical Faculty of Queen's University, Kingston.

(*Continued from August Number*).

The second case was that of an oblique inguinal hernia of about six months standing, in a young man 22 years of age. He had been ruptured by a heavy strain, and although the bowel was fully restrained by a truss, he found the wearing of a truss irksome, and naturally sought for some permanent relief. He consulted one of our most promising young M.D's., who recommended an operation of some kind, and brought him to me for my advice. I advised an operation by the direct method of cutting down and suturing the parts together in a proper manner. After the nature and probable results of the operation had been fully and honestly laid before the young man, he concluded to take the risk, and was anxious to have the operation performed.

After our patient had been anæsthetized and the parts shaved and well scrubbed with a strong antiseptic solution of $HG\ Cl_2$, I made an incision in the line of the canal, and proceeded layer by layer until the pillars of the ring were reached, the external ring was then enlarged upwards on the fore-finger until the two rings corresponded, and with the finger still in the ring, the edges of the conjoined tendon on the one side and of the upper margin of Poupart's ligament on the other, were refreshed by a probe pointed hernia knife. After all bleeding had been arrested and the wound effectively douched with a warm solution of $HG\ Cl_2$ to aq. 4000, the work of suturing was proceeded with.

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* Read before the Ont. Med. Assoc'n, Toronto, June, '92.

In this operation I used prepared cariboo tendon for sutures, and I believe that nothing can supersede it for either fine or coarse suturing where sutures are intended to remain.

The tendinous pillars were firmly drawn together by four sutures of good-sized splittings of the cariboo tendon, the fascia and skin were approximated by deep sutures of good-sized tendon, interrupted, and the skin closure completed by a continuous suture of fine tendon, covered by collodion and dusted with iodoform. A saturated compress of antiseptic gauze was placed upon the wound and overlaid with absorbent cotton, and a broad spica bandage completed the dressing.

The patient was placed in bed in a half-sitting posture, with pillows beneath his knees, morphine administered, the greatest quietness observed, and all such other measures carried out as would be considered requisite after a laparotomy. Healing was very soon effected, and the patient became so well in one fortnight that it was with difficulty I persuaded him to lie upon his back for six weeks —my prescribed time. No bad symptoms whatever followed the operation, and a few days ago I saw him going to his work—that of a tinsmith—feeling as well, he said, as he ever did in his life.

The third case was that of a young man about 24 years of age, who suffered from a complication of hernia, with imperfectly descended testicle. The testicle could be forcibly drawn down as far as the external ring, but was immediately retracted on being let loose, and remained in the upper part of the inguinal canal. The sac had been gradually elongated until the hernial protrusion passed in front of the testicle, distended the canal, and appeared as a spherical swelling over the front of external ring.

He had been advised from time to time to wear a truss, but, of course, on account of the testicle being situated beneath the pad of the truss, it was impossible for him to wear one. Suffering more or less pain constantly, and sometimes very acutely, in the testicle, and being unable to do any active duties, I proposed to him an operation for removal of the irritable testicle, and the cure of his hernia, to which he readily consented.

The preliminaries and concomitants of the operation were the same as those of the last case.

In cutting down, I came upon the sac of the hernia before reaching the testicle, because the posterior part of the sac was adherent to the front and upper part of the tunica vaginalis testis, the hernia lying in front of the testicle as in "hernia into the funicular process," but reaching *below* the testicle instead of remaining *above* it, on account of the undescended state of the testicle. The sac was separated from the constituents of the cord and stitched through with fine catgut, close enough together to maintain the two layers in exact apposition; a stout piece of catgut was passed through the cord of the testicle to prevent its retreating when severed, the tunica vaginalis was then opened, the cord securely ligated, the testicle cut away, and also the non-adherent portion of the tunica. The cord was held in place by the loop which had been passed through it, the sac was cut away beyond the line of stitches and returned, the edges of the canal refreshed, bleeding arrested, and three strong catgut ligatures passed through the pillars of the ring from side to side, and two of them at least passing through the stump of the cord in such a manner as to convert it into a plug to help fill up the vacancy which had been left by the removal of the testicle. The fascia and skin were approximated by deep, interrupted and superficial, continuous sutures, collodion and iodoform applied, and antiseptic gauze, absorbent cotton and a firm bandage over the whole. After-treatment, similar in all respects to the former case, even to the six weeks in bed, was carried out, and no rise of temperature or other bad symptom were ever present to cause the least anxiety. In none of the foregoing cases was a drainage-tube used; the wounds had been diligently douched and sponged with a warm solution of water containing $HG\ Cl_2$, the dressings were all antiseptic, union by the first intention was confidently expected, and we were not disappointed, and they seem to me worthy of being classed as safe, speedy, and permanent cures.

The fourth case is one at which I only assisted, but as it is another testimony in a favor of the safety of cutting down upon herniæ, I deem it worthy of being reported.

The subject was a middle-aged maiden lady who had suffered with her herniæ for perhaps 20 years. It had been an oblique inguinal herniæ and the sac had either distended the deep layer of superficial fascia, or caused its absorption by continued pressure, for the tumor, as large as a goose egg, lay in Scarpa's triangle and the neck passed over Poupart's ligament from the abdominal ring. The long continued irritation had caused consolidation of all the coverings of the herniæ and adhesion of the sac to the deep fascia of the front of the thigh; fortunately the intestines were not adherent and could be returned into the abdomen. When everything was in readiness the contents of the sac were pushed through the ring and retained there by the fingers of an assistant, the sac and coverings held up in a fold perpendicular to the thigh, and the knife at right angles to the line of the thigh, cutting from above downwards was made to remove the whole front of the empty tumor which had somewhat the appearance of a skull-cap. As soon as the cavity was open for inspection it was found that the anterior portion of the hernial sac had been cut away with the skin to which it was adherent, and that the posterior portion was adherent to the deep fascia of the front of the thigh. This deep portion was carefully dissected off from the underlying tissue, and the neck of the sac freed from its surrounding attachments up to the abdominal ring, thus leaving a tubular prolongation of peritoneum open at the lower end. The intestines were retained in their place by the fingers and soft antiseptic sponges, and the tube of peritoneum well pulled down so that it could be firmly closed by ligature. Two double ligatures of strong fine catgut were passed through it, their ends tied together on each side, and then passed around the whole neck a couple of times and firmly tied. The distal end of the peritonal tube was then cut off close beyond the sutures, all bleeding arrested, the wound thoroughly douched with a warm antiseptic solution of $Hg\,Cl_2$—aq. 4000 the wound carefully sutured with prepared catgut and the whole dressed antiseptically with collodion, iodoform, gauze and bandages. A drainage tube was inserted in this case and the patient was kept exceedingly quiet, fed low and very carefully watched. I saw her but once and that was about a fortnight after the operation, and she was then recovering very nicely. Her attendant M. D., told me that she had had no alarming symptoms; her pulse had been somewhat quickened and the temperature elevated for a few days, and nausea, I believe, annoyed her a few times. From the extent and peculiarity of the operation, and the nature of the parts so freely handled and cut open and sewn up, I had expected a much greater disturbance than there was. The lady was kept in her bed for about six weeks, when the wound being entirely healed she was allowed to go about. This operation did not make a radical cure, but it should not be forgotten that there was no attempt made to secure a radical cure; the object aimed at was to relieve the lady of the pain and discomfort caused by the large tumor in her groin and this has been done, and hernial protrusion now being limited (so I am told by her M. D.,) to a small swelling in the region of the internal abdominal ring and this is perfectly controlled by a light truss.

In conclusion, permit me to say that I have thrown together these rambling remarks, not for the purpose of giving instruction in, but to call attention to, this operation for the radical cure of hernia, believing it to be the very best in a large majority of cases; and to show also the safety with which surgical interference may take place in the parts involved in herniæ.

I thank you for your attention and express the hope that others may reflect upon and prove the efficiency of the *direct* operation for the radical cure of herniæ.

Reports of Societies.

ONTARIO MEDICAL COUNCIL.

(Continued.)

REPORTS OF STANDING AND SPECIAL COMMITTEES.

Dr. Williams presented the report of the Executive Committee for the year as follows:

Your Committee beg leave to report that they held two meetings on the 17th March, and 6th April, at which meetings your Registrar was directed to ask the following members of the Council, and members of the profession, to accompany your Committee when interviewing the Attorney-General and the Government of Ontario, regarding the Bills which had been presented to the Local Legislature affecting the Medical Council and the profession in this Province, namely, Drs. Bergin, Day, Orr, Britton, Moore, Geikie, Johnson, Thorburn, Aikins, Wright and Ruttan.

Your Committee believe this was necessary, after the representations made to them by Dr. A. McKay, M.L.A., of Ingersoll, Ontario, and the misapprehensions that appeared to exist in the minds of many of the profession, and particularly the promoters of the Bills brought before the Legislature.

The first meeting which was held on the 17th March. was for the purpose of presenting the case to the Premier and other members of the Government.

The second meeting was rendered necessary, because of the meeting of the Special Committee, to whom the Bills amending the Ontario Medical Act had been referred by the Legislature.

All of which is respectfully submitted.

J. Arthur Williams, M.D.
Chairman, Ex. Com.

13th June, 1892.

Dr. Williams moved, seconded by Dr. Bray, that the report be received. Carried.

Dr. Williams presented the report of the President as follows, and moved, seconded by Dr. Bray, that the report be received. Carried.

Your President begs leave to submit the following report:

1st. In accordance with the regulations of the Council, he attended and presided at the meeting of the Board of Examiners, as set forth in the report of that Board; and he must express to you the conviction, that the Examiners use every possible care in the performance of their work.

2nd. It was impressed upon him at that meeting, and emphasized by some of the Examiners, that there is great irregularity in the distribution of the pay to the Examiners in comparison to the work performed.

3rd. That the remuneration given to the Examiners is entirely inadequate to the services performed, and for the time necessarily consumed.

4th. That when Dr. Pyne is present, as he should be as Registrar, he should also be the presiding Examiner in Toronto, and the Deputy Registrar for the time being, acting in the same capacity in Kingston. That there is then no good reason why the Examiner who prepared the paper should be present, as he is not allowed to give any explanations.

5th. That if not required to be present, less of his time will be consumed, and the Council will be saved the travelling and other expenses.

6th. That the oral examinations are a severe tax, for which there is not reasonable and proper compensation.

7th. That there were at the last examination, 226 primary students and 166 finals. That, according to regulations, two Examiners must be present, and not more than eight students per hour, can be examined. This is a very severe tax upon the Examiners, and before the close of day the mental strain is such that justice can scarcely be performed by the Examiners, or hoped for by the students

8th. Your Examiners are very pronounced in their conviction that appeals ought not to be heard without the Examiner being present. That no case of appeal would be entertained in court, without both parties in the case were duly notified. That for the Council to re-examine on the application of a student, is an injustice to the Examiner, whose side is not heard, and therefore the Council or its sub-committee not having the student present cannot examine him orally, and it practically becomes a test for that student on written examination only.

9th. Your President would respectfully recommend, that this entire subject be referred to the Educational Committee with instructions to carefully examine the whole subject, and report to the Council during the present session.

Your President would further report, that because of the demand being made for the financial condition of the Council by the Legislature and other members of the profession, he asked the Treasurer to have a report prepared giving the financial condition of the Council year by year from its organization down to the present time. This report will be laid on the table at an early date.

All of which is respectfully submitted.

J. Arthur Williams,
President.

College Building, Toronto June 13th, 1892.

Dr. Williams—The President's report is dealing largely with matters urged upon him by the profession. It is an educational matter; and the President's recommendation is that the report be referred to the Education Committee with a view to the matter being carefully dealt with. I am quite satisfied myself it is possible to save hundreds of dollars in holding examinations, and have just as efficient Boards of Examiners as at the present time, and I think the whole matter should be carefully gone into by the Committee. I move, seconded by Dr. Bray, that the report be referred to that Committee. Carried.

Dr. Bray moves, seconded by Dr. Harris, that the Executive Committee's report be adopted.

Dr. Williams—Before this report is adopted I would like to make an explanation. In reading the report over you will observe that in addition to the Executive Committee there are a number of men in Toronto, and members of the Council as well, who were invited by the committee to be present and visit the Government with them.

This was done in this way, as I understand, there was a conference held in some informal way among the medical men who were in the House; and the outcome of that was that Dr. McKay, who was acting in our behalf in the Legislature, mainly, suggested as well as Dr. Pyne that we should bring together certain members, whom he named; I am not prepared to say whether those were named at the conference of the committee that was held at the House, or how; but it was suggested to us that we invite together certain persons that he named for the purpose of waiting upon the Government and presenting their case. As we felt at the time the matter was somewhat critical and we thought ourselves in duty bound to act in good faith with the members of the House who were acting in our behalf; and accepting that view we invited the medical men to assist us that had been specified by them. On the second occasion there was not so large a number invited; the invitations were confined here to Toronto men; and this was by decision of the first gentlemen when they were present, after consulting on the matter; it was decided then the invitations shonld be confined as far as practicable, to local men. At the same time we felt that we must comply with the gentlemen's wishes who were acting in our behalf in the House,

Dr. Rogers.—I think the principal involved is one worthy of the consideration of this Council. The principal is that the Executive Committee called a partial meeting of the Council, and not a full meeting of the Council, I do not find any power in the by-laws or in the Medical Act to empower them to do that. In the first place I do not say but what it was expedient; I do not say but the reason given by our late president is one well worthy of consideration; that he did what he should have done; that is, on the request of Dr. McKay, our mutual friend in the Local Legislature, it was agreed that certain members of this Council should be asked to help the Executive Committee before the Committee of the House of Assembly. I only wish to point out that such a course as that of calling a partial meeting of the Council is not authorized by either the Act or the by-laws of this Council.

Dr. Bray.—I do not wish to interrupt but I think Dr. Rogers is entirely astray. There was no meeting of the Council or prrtial meeting of the Council; there were some gentlemen, members of the Council, in their individual capacity and not as members of the Council.

Dr. Rogers.—I have said it was a partial meeting of the Council, and I said that it should have been a full meeting of the Council or a full meeting of the Executive Committee. I do not wish to be understood to be finding fault with the late president in any method he took, because I am satisfied all he did was in the interests of the profession; but I want to emphasize this fact, that it was an irregularity; that neither the Medical Act nor the by-laws empower the committee to do that. I do say if it was found necessary by the Executive Committee to have assistance from members of the Council then there was only one course open to them and that was to call a full meeting of the Council; that is always open. Each member of this Council has an equal right to attend the meetings with any other member. I have been informed by my friend, Dr. Bray, that this was not a partial meeting of the Council; if it was not a partial meeting of the Council I should like to know very much what it was. Certain members, for instance the names there are Dr. Day, Dr. Bray and Dr. Bergin and Dr. Ruttan I believe were called here at the request of the president.

Dr. Bray.—I never was asked; I was not here at all.

Dr. Rogers.—I thought your name was read out. Certain names were given; those persons not only came here at the official request of the president, but they drew pay for this meeting; there is one serious matter comes in; had they come here as friends of the Council, well and good-had they come here as individual practitioners, well and good, but they were called together officially by the president of the Council which I say was contrary to the authority given by the Medical Act and by-laws of this Council; and they received pay for it. I say it was a partial meeting of the Council. I do not want to say it was not an expedient course to pursue. I do not want to say it was wrong; but I want to emphasize the fact it was not in accordance with the policy of the Council; and consequently it should not be left as a precedent of the future. This, if left unnoticed would be a precedent for the future, that partial meetings of the Council could be called by the Executive Committee.

Dr. Geikie.—I think a year or so ago Dr. Rogers was a member for he came up to attend a Legislative Committee; I think that was attended with a good deal of expense to the Council; and I never heard him say a word as to it not being perhaps wise. And I wish to point out that this report refers to a very essential work, a most important and indispensable work, for which very little was paid.

Dr. Campbell—Dr. Rogers is quite wrong, both as to what was done and as to the power exercised on that occasion. The Executive Committee by the rules of this Council have to take cognizance of any action upon all such matters as may be delegated to it by the Council or upon such as may require immediate interference and attention between the adjournment of the Council and the next meeting. The Executive meeting found their immediate attention was required in a very serious matter that came before the Legislature durthe recess of the Council; they were bound by the rules of this Council to take action upon it; and they did so; and as Dr. Williams says, following the suggestion made by their friends in the Legislature whose opinions they were bound to receive in carrying out the work they had in view, they called in the assistance of certain gentlemen connected with the medical profession throughout the Province of Ontario; some were members of the Council and some were not; and in carrying out the work of the Executive Committee any necessary expenses that were incurred were, of course, to be paid,—that is understood; where the Executive Committee does necessary work the expense involved in that work must be paid; and if gentlemen were called here to do work for this Council I do not suppose we are going to question that those gentlemen should have their expenses paid, whoever they may be.

Dr. Williams.—I would in one sense endorse what Dr. Rogers says, that no meeting of the Council should be called without every member being notified legally and properly; but I would just wish to point out that there was no meeting of the Council called, and that this meeting of members was not a meeting of the Council in any sense whatever; furthermore, that, in my judgment, the Executive Committee would be deserving of the severest censure that this Council could pass upon them if they had not acted in that matter and with the greatest promptitude as well. I think further that the very life of this Council was jeopardized in the Acts before the Legislature; and if this Executive Committee hadn't taken the matter up, and taken it up promptly and vigorously, I am not prepared to say that the Council would stand as well as it does to-day. I would say further that if the Executive Committee were taking it up at all, they couldn't do better than take the advice of the gentlemen who were acting in their behalf in the Legislature; I think if the Committee did not take that advice, and if anything had gone wrong, there is not a member in the Council who would have been quicker to censure them than the gentleman who now takes exception to our action at the present time. I believe if you turn up the Act and take the rule, as already referred to by Dr. Campbell, there is perfect authority to go into the matter and every matter that presents itself for urgency before the Council; and if you turn to the Statute itself and read Section 15, I think you will find there full provision is made for the Executive Committee acting in an emergency of that character (reads Section). I am quite satisfied, under the provision of the Statute, we had a perfect right to act, and we would have been deserving of the severest possible censure of the Council if we had not acted; and I believe we acted wisely and judiciously in taking the advice of the gentlemen who were acting on our behalf in the House; and if we hadn't done so and anything had gone wrong, I am quite satisfied the Council would have been in a position, and justly in a position to censure us for having taken any other position.

Dr. Orr.—I wish to say one word with regard to some of the statements made before this Council. At the last session of the Local House there were three or four members of the Council resident in Toronto,—Drs. Johnson, Britton, Thorburn and myself,—present at the request of the President; and we spent a great deal of time in that Local House, watching closely any of the Acts that the opponents to the Medical Council might bring forward. An inference has been thrown out to-day that we were paid for the time we devoted in the interests of the Council and of the profession. And I would say that I believe Drs. Britton, Johnson, Thorburn and myself received nothing but the one day's pay and that for the day we were requested by the Registrar to appear before the Committee in the House.

Dr. Thorburn—And we spent a week there.

Dr. Britton—Drs. Johnson, Thorburn and Orr, and myself did a great deal of work. One whole week at least was taken from our practices in the interests of this Council at the Legislature, and in other ways for the purpose of advancing the interests of the Council; and for that work we received the sum of one day's pay. I would like this statement to go on record, because it has been stated in the public papers that we have been paid exorbitantly for what we have done.

Dr. Thorburn—I would like to add a rider to that statement; I am not aware I got one day's pay, and that instead of on week I was there one month; and I had daily converse with different members on this proposed legislature, sometimes nightly converse.

Dr. Bray moves that there be added to the motion to adopt the report that the thanks of this Council be, and are hereby tendered to the Executive Committee for their prompt action and good work.

Dr. Rogers—I will move to adjourn, and I will speak on that motion.

The president called for a vote on Dr. Rogers' motion for adjournment, and declared the motion lost.

Dr. Rogers—I would like to explain. I read Section 14 of the Act differently to Dr. Williams' reading. It says the Council shall appoint annually from among its members an Executive Committee. The bylaws of this Council state that the Executive Committee shall consist of three persons. It further says, "that the Executive Committee shall take cognizance of and action upon,"—they themselves shall—of such matters as may be delegated to it by the Council, or such as may require immediate interference or attention between the adjournment of the Council and its next meeting—the clear words of the Act are that the Executive Committee shall do this, and that no other member of the Council shall do it. When I characterize this as a partial meeting of the Council, that is, my reading of the bylaw and the rules; not that I want to contradict the late president of this Council, for whom I have the highest respect, but I do say, and I maintain that the clear reading of the Act is that the Executive Committee shall do that; while in point of fact, instead of doing that, they called other members of the Council to their assistance.

Dr. Campbell—May I ask Dr. Rogers to explain his explanation, whether he considers the Executive Committee are authorized to take certain action, but they must do it themselves? If, for instance, this building should meet with a catastrophe that necessitated certain repairs to be made, and the Executive Committee thought it necessary to go to work and have those repairs made according to this line of reasoning, would the Executive Committee have to do the repairs themselves, or should they employ somebody to do it; and pay that somebody for it?

Dr. Harris—I think it it most ridiculous for Dr. Rogers to come here and to speak in the manner he has in regard to the ex-president and the Executive Committee. I think, and I believe every man in this room believes the Executive Committee did perfectly right in availing themselves of all the possible help they could, not only from members of the Council, but from outside members of the profession. It is a pity so much time should be taken up by Dr. Rogers in this manner. I think he must certainly feel the same as the others do.

On the motion to adopt being put, the President declared it carried.

Dr. Bray presented the report of the Treasurer and moved, seconded by Dr. Johnson that it be handed over to the Finance Committee. Carried.

On motion of Dr. Bray, seconded by Dr. Johnson, the Council adjourned to meet again at 2 o'clock p.m., Thursday, 16th June, 1892.

Afternoon Session.

Thursday, June 16th, 1892, 2 o'clock p.m.

Medical Council met in accordance with motion of adjournment. The President in the chair called the Council to order.

The Registrar called the roll. All present except Sir James Grant.

Minutes of last meeting read and confirmed.

Notices of Motion.

No. 1. Dr. Bergin to amend sub-section 5 section 5 of announcement of 1891-92, by the following, "which appeal shall only be considered by the Council if accompanied by a recommendation of the Board of Examiners, as set forth in subsection 10 of said section 5."

No. 2. Dr. Williams, that the Treasurer be instructed to procure 2,500 copies of financial return of the Council and that a copy be sent to each registered medical practitioner.

Petitions.

Dr. Johnson presents the petition of Drs. Geo. B. Smith, Powell, Primrose and Atcheson, with regard to one Dr. William Anderson, of London, in the County of Middlesex, dated 16th June, 1892.

Moved by Dr. Johnson, seconded by Dr. Harris, that this be referred to the Committee of Discipline.

Dr. Williams—Before that matter is referred I think in justice to the Council we should have some further knowledge than we have got at the present time, as to the nature of the charges being lain against this man. They may be very grave, but so far as this Council knows from any information that has come before it, that supposition is not correct. We don't know that it is true; and before any steps are taken the Council should be satisfied that there are grave charges laid against this man. The Act of 1887 requires that this proceeding should be looked after with the greatest possible care, that no hardship may be inflicted on any man; and I certainly think that the Council should have some knowledge of the circumstances given to them before any very prominent step is taken against him.

Dr. Rogers—Sub-section 2 of section 3 of the Act of 1887 says "the Council may, and upon the application of any four registered medical practitioners, shall cause, etc." That leaves us without option in the matter.

Dr. Moore—I quite agree with the remarks that have fallen from Dr. Williams, that this Council should know something more of the charges that have been made, something more of the case we have before us, that no hardship may be done; I think we should not rush into those things blindly, and I think it would be wiser probably for the advertisements referred to be read.

At the request of the Council the Registrar reads advertisement, "The doctors are coming to Toronto. First three months free of charge. A staff of eminent physicians and surgeons will arrive in the city next Monday, Nov. 23rd, and permanently locate at their residence 272 Jarvis Street, near Gerrard, etc. Hours from 9 a.m. to 5 p.m. and 7 to 8 p.m."

"The doctors have arrived. First three months free of charge. The staff of eminent physicians and surgeons have arrived and are permanently located at their residence, etc."

The Registrar also read the report attached.

The President put the motion to refer the petition to the committee and declared it carried.

Dr. Harris presented report No. 1 of the Education Committee and moved, seconded by Dr. Rogers, that the report be received. Carried.

Dr. Bergin moves, seconded by Dr. Fulton, that the report be read. Carried.

Registrar reads report.

Moved by Dr. Harris, seconded by Dr. Rosebrugh, that the Council go into Committee of the Whole upon report No. 1 of the Education Committee. Carried.

Dr. Miller—I think it would be well to have it understood that the stenographer should report the proceedings in the Committee of the Whole.

Dr. Bergin in the chair.

Report read clause by clause.

Dr. Gilmour, M.P.P., was here introduced to the Council and requested to take a seat upon the platform.

Dr. Ruttan—(Speaking to first clause of report) I think this is a matter of very great importance and that we should be very careful of the individuals who are placed upon that Committee. We do not want any body there that is interested in this or that school. We want a fair representation from the profession in Ontario; and not school men in particular. And, furthermore, the Medical Association, as a whole, is a liberal profession. A medical man who is qualified to practice his profession in any one of the Provinces of Canada, should have a right to practice his profession in the whole Dominion of Canada. It is not like the legal profession, because in Lower Canada they have the French code of laws and a different code in Ontario; and therefore they require to serve a certain apprenticeship or study in these several Provinces in order to qualify themselves to practice within these Provinces, but it is not so with the practice of medicine; a medical man is a medical man wherever he may go. We have in this country the humiliating spectacle that each of the Provinces has a Board of its own, and no matter how well qualified a physician may be if he is living in the Province of Quebec he is liable to fine if he crosses the line to practice in Ontario; and it is the same with a physician living in Ontario who crosses to practice in Quebec; go further west and it is the same, out to British Columbia; no matter competent a physician may be; no matter how high his standing may be, he cannot go into British Columbia from Ontario and practice his profession without submitting himself to the humiliation of an examination; and that examination may, perhaps, be before examiners who were his own pupils in the schools in Ontario and Quebec. There should be something very different fixed with regard to this matter. There are just as competent medical men in Quebec as in Ontario; and just as competent men in Ontario as in Quebec; there is not a whit difference between them; it is a mere sectional affair. The principal parties who are interested in this matter are the schools. On that account I object in committee to any man interested in any of these schools belonging to that committee, and I hope this matter will be taken seriously into consideration. For my own part, I feel very largely interested in it; and I think the profession as a whole is largely interested. We are driving our own men out of the country by this kind of legislation which I say is no benefit to the profession or the public, but that the principal parties interested in it, there is no doubt, are the schools.

Dr. Harris.—I wish to say one word to correct an impression Dr. Ruttan has got. The Committee is composed of the Education Committee, together with the President. There is only one man representing a school on that committee, and lhat is Dr. Thorburn . so for as I am concerned I represent a university; Dr. Moore represents a university, and Dr. Logan is also a representative of a university; the rest of the commiteee are territorial representatives.

Dr. Henry—I think it might be better for the chairman of the committee to give us some information on which he is recommending that this committee be sent down to meet the others. I do not know that there are any overtures made.

Dr. Philip—I having been connected with the Finance Committee, would like to have some information about this; it is obscure in the nomination—it states the president and members of the Executive Committee shall form a committee, etc.; and states the Registrar shall write to them, and ask them to meet this committee at the City of Ottawa on the 20th of September; I want to know from the chairman of the committee, when he gives his information, how this committee is to be paid. We have had committees of this Council in the past, and some of them very innocent looking at their establishment, but when it is all over and the bill is sent in, there is a great big bill to be paid by the Ontario Medical Council. I myself object to the committee being formed unless the financial aspect of the matter is understood. If there is a small committee I myself am in favor of having a committee to meet the committees from the other Provinces, on registration. I would not object to a small committee consisting of the President, and perhaps one or two members to meet this deputation; but unless there is a very clear explanation as to whether that committee is to receive muneration, and if so, how they are to be paid, I shall object to that clause in committee.

Dr. Thorburn—I think Dr. Ruttan's idea is a very good one, that there should be reciprocity between the different provinces, in reference to the power to practice, and so on; that should not be, however, like the handle of a jug, on one side; and we flatter ourselves, rightly or wrongly, that the standard we have established in Ontario stands prominent, not only in this Dominion, but perhaps, in the Anglo-Saxon world. And for us to give our rights to Quebec or the other provinces whose standards may be comparatively high (I don't know as yet that they are, in fact it is impossible for some of them to have an equal standard to us), I think would be folly; I think we should be very cautious in meeting delegates from other provinces until we can equalize our standard. In reference to Dr. Ruttan's remarks about school men, I think they are rather ungenerous; the school men have heretofore shown that they have a liberality not surpassed by the territorial men; they have always been anxious to do what is straight and fair; and as my friend the Dean from Trinity says, I am not a teaching man now; I have got beyond that, and I am merely an honorary man, and I can afford to be straight and square; I have no pecuniary interest, and I think we should hesitate before we come to terms of reciprocity with the other provinces; at the same time I have no objection that there should be a committee to meet these other parties, if so desired; the expense, of course, is a matter of very considerable importance; I do not think the profession have any right to expect men to go from different parts of the country to Ottawa, and attend meetings there, and lose their time for nothing; if it is worth having, it is worth paying for.

Dr. Geikie—I like the remarks of the chairman of the Finance Committee. We want to know what the thing is going to cost. I am a Scotchman, and I believe in knowing what we have to pay. It is very nice to have reciprocity, of course, but we have to be careful that we don't commit a *faux pas*; I think if a small and carefully selected committee ceuld be constituted, with definite instructions—keep out the hateful school men if you like; although I am one of the school men, I would endorse what Dr. Thorburn has said; we have been aspersed as anxious to do all sorts of things, and I would like, as it has been brought up, to emphasize, that, perhaps, the school men have been amongst the most single-minded, and most straightforward men in promoting the interests of the profession—at least as much so as any in the Council; I don't say more so, but quite as much as if we had come from a territorial district. I sincerely hope we will have a small committee, and that the committee will receive definite instructions; and that it will not be landed in a large amount of expense for something that may accomplish no good. I know its promoters desire it should, but they may not accomplish, perhaps, as much as they expect.

Dr. Harris—In order to give the fullest information I would have to go over a great many papers but, but I can give it to you in brief; yesterday in committee I read different communications from the different registrars from the different provinces; take for instance the Province of Quebec; Dr. Campbell writes, they have appointed a committee to confer with the committee of the Ontario Medical College, suggesting perhaps, the first meeting may take place in Toronto; that if another meeting was required it might take place in montreal. We have also communications from Nova Scotia, Prince Edward Island and Manitoba; Manitoba is about the only province that seems to be very independent in the matter; I have a paper from Dr. Patterson, of Manitoba which states that they do not seek reciprocity, but are willing to grant it under certain conditions; that is if we brought our standard up to theirs they would grant it.

Dr. Day—They are perfectly right.

Dr. Harris—Quebec seems anxious to have it. I cannot give you any further information. There seems to be a general feeling, and I think the committee will bear me out in that, throughout the Dominion to have reciprocity with the other Provinces and Ontario. Dr. Philip has spoken about the cost of this committee to Ottawa; in reply to that I will first say, that so far as I am concerned I don't know whether I will be in Ottawa or not, but the feeling I have in the matter, is that the Canadian Medical Association will meet there on the 20th September, and Dr. Bray, a member of this committee, is President of the Association and he will certainly be there; there are other members, such as Dr. Moore, who will likely be there. I really do not wish to see the Council put to any expense in this matter at all. If this report is adopted as it stands, it undoubtedly will saddle the Council with the members' fees there, but I would suggest that it be adopted adding a rider to that in amendment.

Dr. Day—I would simply suggest, I will not move in amendment, that Dr. Logan lives in Ottawa, Dr. Bray will be there, Dr. Moore will be there and Dr. Rogers is living there and I think those gentlemen are quite competent to get the ideas of any representatives that may be there from other provinces, and report to this Council as the motion directs. If you take the report as it stands there it means a committee of ten, nine of the Education Committee, and the President of the Council.

Dr. Rosebrugh—The President and the Vice-President both; they are members of all committees.

Dr. Day—This resolution says the Education Committee and the President; that means, on the regular lines of payment, $135 a day for whatever number of days they are there, and travelling expenses. I think we should be a little cautious; we have been going a little fast on expenses, and

I think if this first consultation with the other representatives could be had without any great amount of expense, it is all right, but I do not think this Council should be put to any expense in the matter; I do not think it is worth the money we would expend if we sent a large committee and paid them per diem. I do not think the information they would receive from it would be up to the value of the amount we would spend.

Dr. Bray—I was very much interested in the portion of the report referring to reciprocity. I have to be at the meeting in Ottawa; and Dr. Moore has to be there; Dr. Logan is there and some other members of the committee no doubt will be there. I would suggest that the committee should receive no pay at all; and let those members of the Education Committee who do not want to come, stay away; there will be enough members there I fancy; as Dr. Day has said, and I proposed in the Education Committee, the committee spoken of should be formed at no cost to this Council.

Dr. Harris—I was certainly under the impression that it would not cost anything, although it is not so stated in the report.

Dr. Day—I would suggest that the report be amended to read "that the committee be composed of the President, and such members of the Education Committee, and such other members of the Council as may be there at the time of the consultation.

Dr. Bergin (in the chair)—The gentlemen going to Ottawa are going to attend the Dominion Medical Association, and ought not to be paid their travelling expenses by this Council.

Dr. Bray—That is the reason why I proposed Ottawa, because there will be members from every Province there. It would be very expensive for the British Columbia Council to send a committee here, or for committees to be sent from Manitoba or Nova Scotia; as it is the men taking an interest in this matter will naturally be there; and it will not or should not cost any Province anything; and that was my object for having the meeting at Ottawa; I do not wish to receive, and will not receive a cent myself; and I am sure the other members of the Association will do the same as I do.

Clause of report adopted as amended.

On motion of Dr. Harris the committee rose, and the President resumed the chair.

Dr. Harris presented the report of the Committee of the Whole, adopting report as amended.

Dr. Harris moved, seconded by Dr. Rosebrugh, that the report as amended be adopted. Carried.

Dr. Miller presented a report of a scale of fees adopted by the medical practitioners in Hamilton for the Burlington and Home District, and moved, seconded by Dr. Campbell, that the report be received and referred to the Committee on Rules and Legislation. Carried.

Moved by Dr. Moore, seconded by Dr. Rogers, that owing to the large amount of business coming before the Council, that a night session be held. Carried.

The Registrar read a communication from Dr. Primrose, of Toronto, asking for an interpretation of certain clauses in the curriculum. Referred to the Education Committee.

Dr. Bray moved, seconded by Dr. Britton, that the Council now adjourn to meet again at 8.30 p.m., Thursday, 16th June. Carried.

Evening Session.

Thursday, June 16th, 1892, 8 p.m.

Medical Council met in accordance with motion of adjournment, the President in the chair, called the meeting to order.

The Registrar called the roll. All present excepting Sir James Grant.

Minutes of last meeting read and confirmed.

Notices of Motion.

Dr. Rogers, *re* amendment to the Medical Act, 1874, in certain particulars.

Dr. Britton presented a petition of Dr. Geo. B. Smith and others, *re* Dr. S. E. McCully. Referred to Discipline Committee.

On motion of Dr. Moore, seconded by Dr. Harris, the Council adjourned to meet again at 10 a.m. Friday, 17th June, 1892.

FOURTH DAY.

Friday, June 17th, 1892, 10 a.m.

The Medical Council met in accordance with motion of adjournment. President in the chair. The Registrar called the roll, all present excepting Sir James Grant. Minutes of last meeting read.

Notices of Motion.

No. 1. Dr. Henry—That the re-arrangement of territorial divisions be referred to the Committee on Legislation.

No. 2. Dr. Rogers—That a circular be sent to every member of the College, together with a copy of the Medical Act, for 1891.

No. 3. Dr. Miller—That the Finance Committee be requested to furnish a statement showing,

1st. The cost up to date of the building known as the Medical Registration office, at the corner of Bay and Richmond Sts.

2nd. The amount paid up to June 1st., 1892.

3rd. The amount of indebtedness on thé 1st, June, 1892, etc.

4th. The amount of revenue received from rent from year to year.

5th. The estimated amount of revenue provided all the offices in the building were rented.

Moved by Dr. Campbell, seconded by Dr. Johnson that leave be now granted to introduce a by-law to carry out the provisions of the Act passed in 1887 entitled "an Act to amend the Ontario Medical Act." Notice of which by-law has been given. That the said by-law be now introduced, be read a first time, and referred to a Committee of the Whole. Carried.

Dr. Bray in the chair.

The bill was read, clause by clause, and the second and third clauses adopted.

After the reading of the fourth section Dr. Campbell moved that the blanks be filled with the names of Dr. Day, of Trenton, Dr. Logan, of Ottawa and Dr. Bray, of Chatham, the present members of the Committee.

Dr. Rogers—I think it does not necessarily follow that we should have the same members on the Committee this year. I have no personal objection to any member of the committee, but I beg to move that Dr. Bergin's name be substituted for the name of Dr. Day. I do not mean anything of a character which may be taken as unpleasant, but I think, taking all things into consideration, that it would be advisable in appointing a new Committee this year to substitute Dr. Bergin's name for Dr. Day's.

Dr. Harris—If you have any reasons for suggesting that you had better give them.

Dr. Miller—Why not move a new committee altogether.

Dr. Williams—I think it is only reasonable that the names should be taken up one at a time, to allow the Council to pass upon them; that might be done and might result in a new committee or in the old committee; but if the names were brought up one at a time, the Council would have an opportunity of passing upon each. So far as the names proposed are concerned, my own feeling is, I would stand by the old man,—that is the chairman we had before, Dr. Day; in so distinguished a manner did he conduct himself before, that some of the legal men who appeared before the Committee did not hesitate to say to the members of this Council that he was equal to a Chief Justice. A man who gains such distinction as that before members of the legal profession who are in the habit of appearing in some of the most important courts in this country, I think we ought not to set aside, without some very important reason being given; and, as far as I am concerned, I will stand by our Chief Justice in that mather.

Dr. Campbell moved, seconded by Dr. Harris, that the first blank in the by-law be filled with the name of Dr. Day, of Trenton.

Dr. Thorburn—I would like to say a word in corroboration of what Dr. Williams said; he says Dr. Day got the name of Chief Justice of the medical profession; but I heard more than that,—that Dr. Day not only had the law but the physical force, and he was able to enforce both. I think that gives him a double claim to reappointment.

Dr. Rogers—I quite agree with the manner in which Dr. Day performed the duties of chairman of the Discipline Committee, but while I agree with that entirely, I think even Dr. Day will admit one thing, that he has now, I believe, accepted and acts in the very important and honorable position of Registrar of the county, and has left the practice of medicine altogether.

Dr. Day—No, I have not.

Dr. Rogers—If I have made an error I certainly wish to withdraw what I said altogether; but that is the impression given me, that Dr. Day has left the practice of medicine and given his time to the work of Registrar of the County and is now outside of the profession. I think to be the chairman of such an important committee whose duty it is to try a brother practitioner, he should be at least a practitioner himself.

Dr. Phillip—I submit that Dr. Rogers is out of order, in not speaking to the point. Dr. Day, there is no question, is a member of this Council so that he is capable of being put on the committee. I do not think we should occupy the time of this Council with such trifling things as that; and I ask the ruling of the chairman on that point.

Dr. Bray—I think Dr. Rogers is out of order but I will put the amendment, that the name of Dr. Bergin be substituted for that of Dr. Day.

Amendment lost.

On a vote being taken on the original motion it was declared carried.

Dr. Campbell moved, seconded by Dr. Philip, that the second blank be filled with the name of Dr. Bray of Chatham. Carried.

Dr. Campbell moved, seconded by Dr. Johnson, that the third blank be filled with the name of Dr. Logan, of Ottawa. Carried.

The chairman then proceeded with the reading of the balance of the report clause by clause.

The committee arose.

The president resumed the chair.

Dr. Bray presented the report of the Committee of the Whole. Adopted.

Dr. Campbell moved, seconded by Dr. Bray, that the by-law be read a third time, passed, numbered and signed by the President and sealed with the seal of the College of Physicians and Surgeons of Ontario. Carried.

REPORTS OF SPECIAL COMMITTES.

Dr. Day presented the report of the Discipline Committee, the petition against Dr. Samuel E. McCully, and moved, seconded by Dr. Bray, that the report be received and filed. Carried.

Dr. Moore presented the report of the Printing

Committee and moved, seconded by Dr. Bray that the report be received. Carried.

Moved by Dr. Moore, seconded by Dr. Bray, that the report be adopted. Carried.

Dr. Hrrris presented the second report of the Education Committee, and moved, seconded by Dr. Ruttan, that the report be received. Carried.

Dr. Bray moved, seconded by Dr. Harris, that the Council go into Committee of the Whole.

Council in Committee of the Whole. Dr. Britton in the chair.

Dr. Harris moved, seconded by Dr. Ruttan, that the report be read clause by clause. Carried.

After the reading of the first clause Dr. Henry said, in regard to the second examination, we gave the privilage to the students two years ago to come up to that examination in September; I approve of that examination and I think it necessary to the interests of young men; but we gave them that privilege and they did not take advantage of it; and we found the cost of the examination was very extensive; and it was dropped I have an amendment on that clause, "That the spring examinations be held annually on the second Tuesday in April, and a fall examination on the second Tuesday in September, provided a sufficient number of students make application to the Registrar two months previous, and that the fees for such examination be sufficient to cover all expenses, otherwise the said examination be not granted." The fact of having to make application to the Registrar two months previous to the time will put him in position to know whether there will be a sufficient number, and whether the money paid will cover expenses.

Dr. Williams—In that clause of the report there are several propositions, and if it is thought well to amend the clause at all, each proposition had better be taken by itself, because some persons might favor one proposition and not the whole; and if it is not carried *en bloc*, but it becomes necessary to take a vote, it had better be subdivided and taken item by item.

Dr. Day—I would suggest that so far as the fall examinations are concerned that in the amendment you simply move that after the words "fall examination," there be interlined "provided enough applications are made two months beforehand to warrant the Registrar in believing the examination will be self-sustaining."

Dr. Harris—It is proposed to change the fee from $10 to $20. You notice in the second clause of that report it reads "that in clause 4, section 4, the word ten be changed to twenty"; we thought this would be a fair compromise. There are a great many appeals laid before us, and many members of the committee thought it was not at all advisable to re-read papers or interfere with the examiners; we thought it would be a fair compromise to have fall examinations and give those students who failed at the spring examination an opportunity of going up and trying again; and the fee of $20 we thought would be adequate for the examination. We do not recommend the examination shall be held in Toronto and Kingston both, but simply at Toronto, and that would lessen the expense.

Dr. Henry—Have you any guarantee that the students will come up to that fall examination? We expected before that they would put in an appearance, but they objected to the fee.

Dr. Britton—I asked the Registrar how many came up last time, and he stated that some hundred odd applied for a fall examination but that only some forty-three came up. I asked him "Could we reasonably expect twenty-five this time?" And he said, "Yes, more than twenty-five." I asked, "What it would cost for the examination?" And he said, "Some were about $500 or 600, not very much more." I should think from that we have a fair guarantee that the expense will be covered by the fee of $20 each.

Dr. Henry—Acting on this information I will withdraw my amendment.

Dr. Miller—If that amendment is withdrawn I beg leave to move another which provides that professional examinations be held in Toronto and Kingston, on the second Tuesday in each and every year, and also in Toronto on the second Tuesday in September, in each and every year; and that due notice of such examination shall be given by the Registrar. I think there should be some stability about this matter. I think one principle which has been adopted by this Council is a correct one, namely that there should not be an appeal by a student from his examiner to this Council. In order to show to the students that we have no desire to deal unjustly by them, that we are anxious that they shall have every opportunity of presenting themselves for examination, that there is no intention on the part of the Council to debar them from such privilege, and we provide that in each and every year, there shall be two examinations, not a supplemantal examination, but two regularly appointed examinations in every year. It may be that some students, after their hard work during the winter, may be unable to present themselves in April, and it would, I think, be a hardship for a student situated in that way to be prevented from coming up for his examination for a year. Again, providing a student passes a fairly good examination on all subjects except one, it is not fair that he should be kept back a year, and more particularly when we prevent any appeal being had from the student to the Council, as to the mode of his examination. We say, instead of that, we will offer you the opportunity of coming up at a regularly appointed examination in September, in each and every year.

These are my views why we should have two examinations in each year.

Dr. Fulton—I will second that motion.

Dr. Philip—I think the policy recommended by the Education Committee for this year a good one; that is, to have an examination for this year in the fall. Having the fall examination at one place, say Toronto, and not at Kingston, would save a vast deal of expense and would not be an injustice to the students; if they wished a supplemental examination they could go from all points of the Province. I am in favor of a spring examination both in Toronto and Kingston, but I do not think the examination in the fall should be held in both places.

Dr. Williams—I fully accord with the remarks made by Dr. Philip; but while that is true, we know there is at least, about one half of this Council are of the opinion that one examination a year is enough. We have received this year the assent of at least all the Education Committee that this year it is better to have the two examinations; those of us who are in favor of having two examinations always, should not hesitate to accept that step, and when the next year comes let the next year stand upon its merits, but we had better accept the step, now that it is in our favor, and have the two examinations for this year.

Dr. Harris—I think the motion of Dr. Miller is all right in a way; but I believe the clause in the report is a better one at the present time; and Dr. Miller's motion is one that can very properly come up at the meeting of the Council in June, 1893. In our report we provide for an examination in the spring, both in Toronto and Kingston; and we make a special examination this fall; we do not call it a supplemental examination but a special examination and we charge a fee of $20; in Dr. Miller's resolution he says nothing at all about the fee.

Dr. Miller—I understood your report further on dealt with the question of fees, and that was the reason I said nothing about it in my resolution, and the reason why I framed my resolution as I did. If a student comes up for examination who has failed, that clause will meet his case; he will have to pay a fee of $20, while a student who presents himself at the September examination, and who did not come up in April, pays the $10 fee as provided by the curriculum.

Dr. Bray—I quite agree with the views of Dr. Miller; I believe we should have two examinations a year, but at the same time, I doubt very much if we have power to legislate beyond a year; and I think if we have this examination this year, and the regular examination next year, it will be a step in the right direction. I quite agree with the remarks Dr. Williams has made; and I think it is better for those in favor of two examinations a year to accept this report of the committee now, because I do not believe this Council has power to go beyond a year.

Dr. Miller.—In reply to Dr. Bray, I would say, why give any of our proceedings at all the character of stability? Why adopt a curriculum which we hope will continue to be in existence for years to come? I fail to see why we should adopt a temporary expedient, a temporary arrangement in a matter of this kind, when we ought, above all things, to make this as permanent as possible in order that the young men studying may know what they may depend upon; if it comes to be understood by the students and by their teachers that we adopt certain rules and regulations and that they only prevail for a few months following their enactment, then we will be giving to our rules and regulations and our curriculum, a character which I think should not attach to it; and for that reason I have moved the resolution which I have, because I believe the curriculum which my learned and esteemed friend on the right (Dr. Bergin) succeeded in passing last year is a curriculum which was intended to have a character of permanency about it, and this being a portion of it I should like it to be in the same position, not to imperil one part of the curriculum more than another.

Dr. Day—For the present year this is all right, as right as it can be; I am living in the faith of a permanent fall examination, but that is not a question necessary to speak upon just now; so far as this year is concerned, the fall examination is provided for. I think this supplemental examination should be self-sustaining, because I don't know that the Council is in a financial position to say we must have a fall examination, whether anybody comes up or not; I think we could not very well carry out that view. We talk about making this permanent. We have no power to say there shall be an examination at all after a year from now; next year we may change all this. Two years from now, at any rate, there will be a new Council, that all the permanency this Council could possibly give would be for 1893 and 1894; we could simply express an opinion that it ought to be permanent, in fact, there is no motion in that direction which we may pass now that may not be all upset before we get through this session. I think it is quite unnecessary to have these permanent examination views. We are saying they are permanent in each and every year, but we have no power to say that before we leave here to-morrow night the whole thing may not be changed. Therefore I think it is much better it should stand as the committee have left it.

Dr. Fowler—There is a financial question connected with this examination which I think has not been alluded to by any member of the Council. that is in regard to the fee. In the announcement which has been published for some time, the the fee for these extra examinations has been placed at $10; and my impression is unless we make this fall examination a special one that we have no right to charge more than $10 for it." In making it a special examination I think we can charge the $20, but I question very much after our announcement that the fee for extra examinations shall be $10, if we can change it except by making this a special examination.

Dr. Philip—In view of the explanation that is made by Dr. Fowler, if the proposer will allow me, I will withdraw my seconding of the resolution.

Dr. Rosebrugh—It says "each student shall pay $20 for each subsequent examination." I agree it is perfectly right they should pay $20 for the special examination this fall, but if one or two or three failed to pass that and came up next spring again in the regular way, I do not think they ought to be charged the $20 for the spring examination.

Dr. Miller—I will move that clause of the report of the Education Committee be amended by providing that a professional examination be held in Toronto and Kingston on the second Tuesday in April, and in Toronto on the second Tuesday in September.

On motion, the first clause of the report was adopted.

Dr. Moore.—I move in amendment that section one, clause one, page twelve of the regulations, be amended by striking out the following words found in the fifth and sixth lines, "with the prescribed science course added and compulsory," leaving the clause to read "every one desirous of being registered as a matriculated medical student in the register of this College, except as hereinafter provided, must, on and after the first day of November, 1892, present to the Registrar of the College, the official certificate of having passed the pass university departmental matriculation examination, whereupon he or she shall be entitled to be so registered upon the payment of $20, and giving proof of identity." I said yesterday, and the day before, that the way this section was worded, it was unintelligible. We had this up for discussion in the Education Committee last night, and in order that we might prove whether it was really intelligible or whether it was advisable to leave it in this form, it was moved that the opinion of the Deputy Minister of Education be obtained; and I obtained that opinion this morning. I went to the Deputy Minister's office this morning and took the announcement, together with this circular form of theirs, and laid the announcement open before him and asked him to read this, which he did. I then asked him his opinion as to what this "prescribed science course" really meant; and asked him to give his written opinion, which he gave as follows: "Toronto 17th June, 1892, Dr. V. H. Moore. In reply to your communication of to-day, I may say it would not be practicable to modify the requirements for matriculation in Arts so as to have the optional subjects to correspond with the compulsory additional subjects of science prescribed for matriculation in medicine.* As you will notice, there is no science prescribed for university matriculation; a time paper for the July examination is arranged so as to present no difficulty to intending matriculates. It would not be possible to modify the present course of study so as to change the work in the high schools to suit the comparatively few students intending to take up medicine. I might suggest it would, perhaps, be better to have your requirements worded somewhat differently, say, "the departmental matriculation examination in Arts, and in addition, if not included, physics and chemistry."

I have also another letter from a gentleman whom a great many of you know, Mr. J. E. Hodgson, the High School Inspector, dated June 17th. "Referring to the subject of our conversation this morning, I have to say that unless the matriculation examination of the Medical Council is made to harmonize with the Arts matriculation in universities, the working of high schools will be materially interfered with by the necessity of providing extra classes for a relatively small number of pupils." This is the opinion of both the Deputy Minister and Mr. Hobson, the High School Inspector, who has had a great deal of experience. Therefore, it seems clear to me, as I said before, this is unintelligible to a certain extent; and it is unworkable; and if you leave it as it is, it is going to interfere with the workings of the high schools and collegiate institutes; and as the Minister informed me, a student in order to take this course would have to first matriculate in Arts, and then to take whatever we might fix upon as the science course at a subsequent date. It seems to me, under the circumstances, we ought to work on the lines of the Education Department, and on the lines of the University; and I therefore move this amendment, believing it is in the best interests of the profession, of the students, of the public, and of the high schools, and in the best interests of the educational institutes of the country. I feel if we press this we will have the very same difficulty arising that arose during the last year; the clause was so unintelligible, that the head masters of collegiate institutes and high schools could not understand it. I could not understand it. The professors in Queen's University could not understand it. I am lead to believe our Registrar could not understand it. Then why should we leave anything upon our record as to a portion of our matriculation examination that would not be intelligible and easily understood by every intending medical matriculate. I submit that the best way is to make it the "pass university departmental Arts examination."

Dr. Harris--We intended to have this matter up in committee to-day, after having heard the views of the Minister, and then report on it. I have no objection to Dr. Moore adding that, because it is part of the same clause really that was intended to be left over.

Dr. Rogers—I submit this is out of order; this report simply specifies the date. We are now discussing only the report brought in by the Education Committee which says that the word "July" shall be changed to "November"; we are not discussing the terms of the matriculation; that has not come before the committee yet; we will report on that, but surely it is out of order before we have had a chance to report on it to discuss it here. Another thing is it was decided in the meeting of the Education Committee last night, and Dr. Moore was there, that we should ask the Deputy Minister of Education to come down to that committee and to give us information. In good faith we took that stand, and in good faith we left it; we did not report on it; and now Dr. Moore, without giving the committee a chance to consider it, brings forward an amendment which I say should be ruled out of order as it is not before the committee; and I ask the chairman's ruling upon it.

Dr. Geikie—It is a pity to waste time on technicalities.

Dr. Britton—I think as an addition to this clause, the amendment is in order.

(To be continued.)

Selected Articles.

ON PREVALENT THERAPEUTIC INCONSISTENCIES IN MEDICAL PRACTICE, ILLUSTRATED IN CURRENT MEDICAL LITERATURE AND IN CLINICAL OBSERVATIONS.

To gain a correct knowledge of the morbid processes capable of taking place in the human body and the laws by which they are governed, on the one hand, and an equally correct knowledge of the action of remedial agents, on the other, are the two great leading objects of every thoughtful and conscientious physician. Without the first, he is incapable of seeing clearly what he needs to accomplish in the treatment of any given morbid condition or disease; and without the second, he is equally in doubt as to the particular remedy best adapted to the accomplishment of the changes desired; and in consequence he is obliged to prescribe empyrically such remedies as are recommended by his teachers or authors.

For instance, if he regards any given case of fever as simply increase of heat or pyrexia as its chief pathological element, without any definite knowledge as to whether such pyrexia has resulted from increased activity in the processes of heat production or a diminution of those of heat dissipation, he will have no guide as to which of the antipyretic remedies is best adapted to the case before him.

Or, if he has learned to discriminate correctly the special morbid processes by which the pyrexia is sustained, but has neglected to study the *modus operandi*, or mode of action of such remedial agents as are known to reduce animal temperature, he is equally in doubt and as liable to choose the wrong therapeutic agent as the right one.

The inadequacy of time hitherto devoted to study in the two directions just named, and the consequent incompleteness of knowledge concerning both morbid processes and the action of remedies, has caused our medical literature to be filled with the most confused and even contradictory statements concerning the application of remedies in the treatment of disease; and sometimes even attributing to the same remedy qualities so diverse as to be incapable of rational explanation.

Opium and alcohol furnish striking examples of the latter. Thus, in that well-known standard work, The National Dispensatory, we are informed that, "alcohol applied to the roots or stems of plants destroys their life. It is poisonous to every animal, producing local or general anæsthesia, according to the mode of the employment. Applied to the trunk of a nerve it paralyzes all its branches, and to the brain it impairs sensation and voluntary motion. * * Taken internally, in small quantities appropriately diluted, it excites a sense of warmth in the stomach, and, if the person is very susceptible, an almost instantaneous glow throughout the body, etc. * * In larger and intoxicating doses, alcohol occasions such symptoms for a shorter time, but speedily induces a state of impaired perception and motor power, which is followed by one of total insensibility and unconsciousness, in which the phenomena are those of congestion of the brain, and usually of the whole capillary vascular system, although the latter sometimes gives way to coldness and pallor." Yet, on the next page of the same work, the same substance is represented as "stimulating the exhausted nervous system and thereby exciting the distended capillary blood vessels to contract," and as under certain circumstances acting as food. And again that "in the form of distilled spirits, alcohol is the universal and familiar remedy for *debility of every kind*, whether it be due to exhaustion produced by shock or fatigue, or shown by syncope arising from a nervously feeble or an exhausted heart, to wasting chronic disease, or to the tissue destruction of acute febrile affections."

How any material substance can possess such properties as to be capable of diminishing the sensibility of the whole nervous system, of impairing the oxidizing power of the blood-corpuscles, of lessening metabolic changes in all the living structures, and by contact absolutely poisonous or destructive to both vegetable and animal life; and yet be capable of "stimulating the exhausted nervous system," of becoming real food, and of exhibiting such ubiquitous tonic powers as to constitute a universal "remedy for debility of every kind," is certainly beyond the comprehension of an ordinary mind.

One of the most influential causes of confusion and failure in the application of remedies in the treatment of disease, is the long-continued custom of classifying or rather grouping of remedies in reference to their influence over some one prominent symptom of disease, instead of on their real mode of action in the system. For instance, we group together all remedies capable of efficiently reducing animal heat and call them antipyretics. Hence, we find under that name sponging, packing, and bathing with water, the exhibition of quinine, salicine, antipyrin, acetanilide, phenacetin, digitalis, etc.; and not unfrequently we see nearly all of them given in turn to the same patient during a single run of continued fever. Yet there is no fact within the domain of therapeutics better established than that antipyrin, phenacetin, and all the recently constructed coal-tar series of antipyretics, so modify the hemoglobin of the blood as to lessen its conversion into oxyhemoglobin, and, therefore, lessen the conveyance of the oxygen from the pulmonary to the systemic capillaries, and thereby diminish temperature by diminishing tissue metabolism and the sensibility of the cardiac, vaso-motor, and respiratory nerve centers.

In other words, they diminish the internal respiration by which oxygen is carried from the pulmonary to the systemic capillaries and carbon dioxide returned, and in the same proportion they diminish nerve sensibility and natural molecular and secretory action. Therefore, they reduce temperature principally by depressing all the processes by which heat is naturally evolved. On the other hand, the use of water by sponging, packing, or full baths, increases the activity of the nervous centers and of the natural secreting structures and actively reduces the temperature by increasing the processes of heat dissipation. Thus, while both series of remedies are called antipyretic, they produce their antipyretic effects by influencing the cardiac, vaso-motor, and respiratory functions in nearly opposite directions. And yet, we have often found the practitioner daily administering both kinds to the same fever patient for one or two weeks in succession.

Another cause of much inconsistent and even contradictory use of remedies in the treatment of diseases, is the failure to maintain a clear line of distinction between tonics, stimulants and anæsthetics. Correctly speaking, a *tonic* is an agent that is capable of increasing the tonicity, strength and natural efficiency of some one or all of the structures of the body. A *stimulant* is one that simply increases the excitability and rapidity of action. An *anæsthetic* is one that directly diminishes both sensibility and action, either local or general, according to the method of its use. Within certain limits, it is evident that tonics and stimulants may co-operate in their action on the structures and functions of the living body at the same time; while the action of an anæsthetic is directly antagonistic to both. And still, some of the most familiar and extensively used anæsthetics are spoken of and used as stimulants and tonics both in and out of the profession, and often given alternately with the latter, to the same patient from day to day. Both in standard works on practical medicine and in the periodical medical literature, we find iron, quinine, mineral acids, cod-liver oil, wines, distilled spirits, ammonia, camphor, etc., enumerated as general tonics and stimulants, adapted for the promotion of strength and nutrition. And in referring to special cardiac tonics and stimulants, strychnine and alcohol almost always head the list, followed by digitalis, strophanthus, convollaria, cactus, musk, oxygen, etc. One eminent teacher and writer on practice of medicine says in regard to lobar pneumonia, the two chief sources of danger are "*heart-insufficiency and high temperature*," and he adds that "alcohol, judiciously used, is the most efficient means for overcoming" the first, and the sulphate of quinine in moderately antipyretic doses, the second. Another writer in the January number of *International Clinics*, 1892, formulates the treatment of catarrhal pneumonia in children under the following heads: 1. Fresh air. 2. Relief of pain. 3. Stimulation. 4. Treatment of complications. Under the first head he very properly insists on the most free and efficient ventilation of the sick room, that the patient may have constant access to *fresh* air. For relieving pain he condemns the use of opiates as dangerous in such cases, and relies on simple emollient poultices to the chest. For *stimulation*, he says: "We stimulate by the constant administration of alcohol; fifteen, twenty, twenty-five drops, or a teaspoonful of whiskey, according to age, every two hours." In several very recent numbers of the *British Medical Journal*, correspondents have detailed a number of cases of extreme depression and cyanosis in pneumonia treated with strychnine and oxygen inhalation, and at the same time giving brandy or whisky between the inhalations. Each inhalation revived and improved the aspect of the patient, only to be quickly replaced by the cyanosis and finally the death of the patient. One case came under my own observation, in the treatment of which the attending physician was diligently administering oxygen by inhalation and brandy, both by the mouth and rectum. And very many times during the last ten or fifteen years I have seen patients in the second, third, and even the fourth week of typhoid fever, who were diligently taking day after day, antipyrin, acetanilide or phenacetin to reduce the temperature; strychnine and mineral acids to increase innervation or nerve sensibility; and wine, whisky, or brandy as supposed cardiac tonics. If we examine the results of the most reliable investigations concerning the action of the remedies mentioned as used in the cases to which I have just alluded, we quickly learn that the patients were actually using, coincidently, remedies of decided antagonistic influence on the structures and functions of the human body. For instance, both carefully executed experiments on animals, and abundant clinical observation have shown that antipyrin and the group of antipyretics to which it belongs directly diminish the formation of oxyhemoglobin in the pulmonary capillaries and the conveyance of oxygen to the systemic capillaries, and thereby diminish metabolism, heat production and nerve force. Hence, there are many cases on record, in which their administration was followed by cyanosis and a dangerous degree of depression of the cardiac, vaso-motor and respiratory nerve functions: Still more numerous experiments on animals and almost unlimited clinical observation has shown that alcohol produces a similar effect on the hemoglobin and albuminous constituents of the blood, thereby lessening the tissue metabolism, but more directly diminishing at the same time the sensibility of the whole nervous system in a manner closely analagous to that of chloroform and ether. Therefore, instead of acting as either a stimulant or tonic, it constitutes a true anæsthetic, and has been often used as such, mixed with chloroform and ether. When introduced into the system in any manner, it not only diminishes the sensibility of the cerebral hemispheres and thereby suspends consciousness, but it also lessens the sensibility of the vaso-motor, respiratory and cardiac nerve ganglia, and in direct proportion to the amount used.

On the other hand, strychnine is conceded by all to be capable of directly increasing the sensibility and action of the cardiac, vaso-motor, respiratory and cerebro-spinal nerve structures; and, therefore, is in direct physiological and therapeutic antagonism with the antipyrin, alcohol and other anæsthetics. Consequently when a patient with typhoid fever is given from day to day antipyrin or phenacetin to control temperature, milk and eggs liberally mixed with alcohol for nourishment; and strychnine, mineral acids, and fresh air for tonics; the antipyrin and alcohol directly antagonize the influence of the strychnine and fresh air, both on the nervous centres and on the blood and tissue changes. If in such cases the antipyrin and alcohol, and all other agents of similar action, were entirely omitted, and judicious applications of water to the surface substituted, the treatment would be harmonious and far more beneficial in its results, as I have seen demonstrated many times during the last half century.

In the cases of pneumonia to which I have alluded, the inconsistency of giving whisky or brandy, or any other alcoholic, freely, alternately with digitalis, strychnia, fresh air or oxygen, is still more apparent. The pneumonic engorgement of the lung has already much diminished the amount of oxyhemoglobin in the blood, and thereby checked both tissue metabolism and renal secretion, as well as dulled the nervous sensibilities, voluntary and involuntary. In such a condition, to set the doors and windows open for fresh air, or to give the patient oxygen inhalations, and at the same time liberally of alcoholics, perhaps twice in the twenty-four hours an antipyretic dose of antipyrin or phenacetin, or a hypodermic dose of morphine, would be much like plugging the larynx of a dog, and then trying to keep him alive by practising artificial respiration without removing the plug.

I am well aware that those who give alcohol in pneumonia, do it in obedience to the teaching that the chief danger in the disease is cardiac weakness and that alcohol is an efficient cardiac tonic. But why does the heart become weak or inefficient in pneumonia? Certainly not from fatty degeneration or any other structural change in the cardiac muscle; but its weakness is either from the diminished oxygenation and decarbonization of the blood through the obstructed parenchyma of the lung, or from the toxic effect of ptomaines or leucomaines, bacteriological or renal, or from all these combined. If it were possible, with the patient in such condition, to simply increase the action of the heart, it would only pump more blood into the already obstructed pulmonary capillaries and still further diminish the natural entrance of oxygen through the air cells of the lungs, and thereby increase the danger of inducing both respiratory cardiac paralysis. The rational indications for treatment, then, are, to lessen the pressure of blood and inflammatory products upon the pulmonary alveoli, and thereby allow the entrance of more oxygen and the exit of more carbon dioxide, and as far as possible to neutralize or eliminate the toxic ptomaines whether derived from the pneumococcus or from retained elements of urine or bile. Just in proportion as we accomplish these, we restore the natural sensibility and action of the nervous structures, increase the renal and hepatic secretions, and promote natural metabolism throughout the system.

But do not both common observation, whether at the bed-side or in the social circle, and the most accurate experimental work show, that alcohol is a true anæsthetic, diminishing nerve sensibility, muscular force, and the efficiency of the blood in carrying oxygen from the pulmonary to the systemic capillaries in direct proportion to the quantity introduced into the system? If any one has doubts concerning the affirmation of this question, let him read carefully the experiments of Sidney Ringer and Prof. Martin on the action of alcohol on the isolated heart, and those of H. C. Wood, as given in his address on Anæsthesia before the International and Medical Congress in Berlin. If we add to the results obtained by these three, those obtained by R. Dubois in 1883, we have the most complete demonstration, not only that ether, chloroform and alcohol are true anæsthetics, each mutually intensifying the action of the others, but that each directly diminishes that sensibility and action of the vaso-motor, respiratory and cardiac nerve ganglia or centres, in direct proportion to the amount introduced into the blood, until either respiratory or cardiac paralysis ensues. And also that there is no stage in their action when the efficiency of the heart is increased. Then, why longer be so inconsistent in the use of language as to call either of them a stimulant or tonic? And why continue to give one of them liberally with one hand, while with the other you give to the same patient its most direct physiological antagonists, digitalis, strychnine, or oxygen? Or why cap the climax of inconsistency by giving a patient already dangerously depressed from anæsthetics, hypodermic injections of ether or alcohol as supposed restoratives, as has been done many times both in this country and in Europe? Indeed, it is only a few weeks since that a case was reported in the *British Medical Journal*, of a patient whose respiration and circulation had been suddenly suspended during the inhalation of the anæsthetic composed of ether, chloroform and alcohol combined, and, aside from the practice of artificial respiration, the most prominent remedy mentioned was hypodermic injections of ether. Of course, the patient did not recover. Many years since a man was brought into the hospital partially intoxicated by alcoholic drinks, with a dislocation of the head of the humerus. As he was somewhat boisterous the surgeon thought to quiet him and facilitate the reduction of the displaced bone by a cautious inhalation of chloroform. But he had inhaled only a very small quantity before both respiratory and cardiac action suddenly ceased, and all efforts to restore them failed. The amount of alcohol already in his blood and nerve tissues rendered the addition of only a very small quantity of chloroform, acting in the same direction, sufficient to overwhelm their functions. Another case came under my observation, illustrating the danger of giving in quick succession different remedies capable of modifying the functions of the nervous centres in the same direction. The patient was wild and restless from delirium tremens. To quiet the delirium and induce sleep, the attending physician gave him chloral hydrate and potassium bromide every hour until three doses had been taken, forced a moderate amount of inhalation of chloroform, and finally gave half a grain of morphine, which was soon followed by sleep from which he never awoke. The amount given of any one of the four remedies used was not sufficient to endanger the life of the patient, but the co-operation of all certainly and speedily proved fatal.

Such cases show that it is quite as necessary that the physician should know accurately what remedies coincide and mutually intensify their action, as it is those that directly antagonize each other. And this suggests another item of extreme practical importance. It is to avoid giving a remedy to relieve some troublesome symptom without just appreciation of its liability to increase some of the most important pathological conditions involved in the case. For instance, in many cases of capillary bronchitis and of acute pneumonia, the patient becomes very restless from the oppressed breathing and harassing cough, and at the same time his urine is scant and his blood surcharged with renal and bacteriological toxic elements with excess of carbon dioxide and deficiency of oxygen. But his physician, overlooking these, thinks it necessary to give his patient rest, and for that purpose gives him a fair hypodermic dose of morphine, and perhaps an antipyretic dose of phenacetin to control the temperature. In a short time the patient becomes quiet, sleeps some, and expresses himself as much better, but is still drowsy, with a soft, frequent pulse, frequent and shallow respiration, and moist râles over nearly the whole chest. In from twelve to twenty-four hours, the somnolence, instead of disappearing, is increasing, the pulse is weaker, the respirations more frequent and less deep, the cutaneous surface is moist and dingy or of a leaden hue, and the physical signs of pulmonary œdema are hourly increasing. Now, if not before, the alcohol in the form of whisky or brandy, is given freely for the alleged purpose of sustaining the failing heart But, nevertheless, in another twenty-four or thirty-six hours the patient is dead. While the morphine quieted the cough and restlessness, giving the patient an appearance of relief, in the same ratio it diminished the efforts to keep the bronchioles and alveoli free, consequently less oxygen reached the hemoglobin of the blood and carbon-dioxide accumulated still more rapidly, until vaso-motor paralysis and pulmonary œdema completed the fatal process. During the unusual prevalence of pneumonia and other acute pulmonary affections that have accompanied the influenza epidemics of the last three years, many cases have occurred to which the foregoing description would apply with almost literal accuracy.

Another of the most common therapeutic inconsistencies that mars the pages of our medical literature and leads to most important errors in practice, is the claim that the same medicine or therapeutic agent, may produce directly opposite effects on the living body by simply varying the dose. Examination will show that this claim is limited chiefly to the two important groups of medicinal agents properly called narcotics and anæsthetics. These are universally recognized as exerting their principal influence on the functions of some part or all of the nerve structures of the body, while some of them exert an equally direct influence on the constituents of the blood and through it upon the metabolism of the tissues generally. Concerning nearly all of the members of these two classes, and especially regarding the two representative articles, opium and alcohol, we are constantly assured that in small doses they are stimulating or tonic; in larger doses, anodyne or inebriating; in still larger doses, narcotizing or anæsthetic; and in still larger doses, paralyzing or destructive to life. Consequently the very general popular belief, and equally popular practice, is, that their use in small doses is cordial, restorative or tonic, and, therefore, beneficial, and injurious only when taken in larger doses. Unfortunately, however, no one has yet been able to define the limit or dividing line where the small or tonic dose ends and the larger or depressing dose begins. All admit that, even in small doses, these remedies diminish the amount of oxygen conveyed from the pulmonary to the systemic capillaries, and thereby diminish the molecular or metabolic tissue changes and the excretion of the products of natural tissue metamorphosis. Indeed, it is on this power to diminish the internal distribution of oxygen and its action on the tissues that one of their chief and most important uses is made to depend, both in health and disease. But while looking in this direction, and, perhaps, admiring the working of this fancifully so-called "savings bank for the tissues," it seems to be forgotten that all nerve sensibility and force depends upon the presence of blood containing the natural amount of oxygen; and that just in proportion as we diminish the proportion of oxygen in the blood distributed to the nerve structure, we diminish both nerve sensibility and muscular action. So true is this, that the simple exclusion of oxygen produces a more speedy suspension of all sensibility or profound anæsthesia than can be produced by the most active anæsthetics known.

Is it not, then, physiologically impossible that any agent should so far diminish the distribution of oxygen in the arterial blood as to diminish general tissue metabolism and not at the same time diminish the sensibility and action of the nerve structures, both voluntary and involuntary? And, if so, how can it be at the same time a cardiac tonic and general restorative?

A careful and thorough review of all the facts, social, clinical and experimental, bearing on this subject, will show that the very general belief in the stimulating or tonic properties of small and repeated doses of alcohol and opium is erroneous, being founded on a wrong interpretation of the primary symptoms produced.

Of course, no such review of the facts can be given within the proper limits of this paper, but I may trespass upon your patience long enough to suggest the more important conclusions to which it would lead. For instance, the temporary quickening of the pulse or heart beat, the sense of warmth and lightness or exhilaration, that pervades the system, and the greater volubility of speech and less restraint in action, which constitute the only foundation for the popular idea of stimulation, on closer physiological analysis will be found to be evidences of coincident diminution of nerve sensibility (anæsthesia), and retarded tissue metabolism. The nervous apparatus controlling the circulation of the blood embraces both cardiac accelerators and inhibitors, and every well-informed psychologist knows that the mental part of the brain furnishes both accelerators and inhibitors of mental action. Indeed, it is the possession of the latter that gives to the human species one of its most distinctive characteristics, namely, the power of self-control and the sense of propriety. Every true narcotic and anæsthetic makes its first recognizable impression simultaneously on the cerebral hemispheres and the vaso-motor and cardiac nerve structures, lessening their sensibility, partly by direct contact with the nerve cells, and partly from interference with the internal respiration. Such lessening sensibility in the cerebral convolutions, when slight, simply diminishes the mental consciousness of outward impressions, and lessens the balance between mental acceleration and inhibition. Hence they exhibit less consciousness of cold, or heat, or pain, and more mental exhilaration, with less reserve or self-restraint.

Precisely the same kind of influence is exerted on the nerves regulating the circulation, causing a very transient semblance of increased activity, but which is really lessened efficiency of circulation and molecular change. Now, if you duplicate the dose of the same agent, the patient's consciousness of impressions is still less, and while he is under the same impression that he could do a great deal, his mental exhilaration and lack of self-restraint has given place to mental incoherence and in-coördination of muscular action. Again duplicate the dose, and your patient soon lies profoundly unconscious, with every voluntary muscle paralyzed, with the cardiac and respiratory functions on the verge of final suspension.

To my mind, it is a clear demonstration that the action of the therapeutic agent was in exactly the same direction from the first and smallest dose to the largest one. And that direction was one of depression, dimished efficiency and paralysis, from the beginning to the end.

This is fully corroborated not only by the experiments of Dubois, Sidney Ringer, Martin and Wood, to which I have before referred, and many others, but also by a great variety of facts to be gathered from the mortuary, vital and social statistics of every civilized people. Did time permit, I might point out many more important therapeutic inconsistencies that are to be found in the daily routine of medical practice, but those to which I have referred are sufficient for my present purpose. For the leading object I had in view in presenting this paper, was to urge upon your attention the importance of a more thorough study of the nature and true physiological action of the articles of our superabundant materia medica, in connection with an equally thorough study of the actual pathological processes that constitute disease.

I would in no wise diminish the activity and zeal that has been, and still is, displayed in studying the causes of disease, whether bacteriological, chemical or meteorological. But I would insist on an an equal activity and perseverance in such investigations as will develop more accurate knowledge concerning the action of therapeutic agents in the living body, both in health and in disease. Every living structure has properties, or susceptibilities and affinities, that place it in definite relations to all other substances that may be brought in contact with it, whether as food, medicines or poisons.

And for gaining more exact knowledge of such relations, I would have every medical college laboratory, public hospital and dispensary, furnished with the necessary apparatus and means for such investigations, and with skilled workmen to use them.—N. S. Davis, Chicago, in *Jour. of Am. Med. Assoc.*

TUBE-CASTS AND THEIR DIAGNOSTIC VALUE.

The study of renal tube-casts is not new. Since Henle, in 1842, first comprehended and announced their importance, their relation to renal diagnosis and pathology has been generally admitted.

The exhaustive essay of Barteis, in Ziemssen's *Cyclopedia*, is an excellent record of our knowledge of casts up to that time; but I think something more may now be added.

For some years past I have had occasion to study tube-casts frequently and consecutively for purposes of diagnosis, and, while doing so, have, insensibly perhaps, arrived at certain results and reached certain conclusions, which it is my purpose to set forth in this paper. I do not claim any new discoveries, but hope my paper will add something of system and definiteness to the study of casts, and something of certainty to the diagnostic conclusions to be drawn therefrom.

Concerning the origin of tube-casts, I think they are clearly of two distinct kinds; each having a different origin, and each indicative of a different pathologic process. First, we have the mucous, or more properly mucin casts—and I do not think that casts of this variety have received the consideration to which their importance entitles them. Mucin casts I would divide into two groups: (*a*) Simple mucin casts, without crystalline or cellular elements; (*b*) Casts that include saline or cellular elements acquired during their formation in the kidney. This division has an important bearing on diagnosis, as I shall endeavor to show presently.

Secondly, we have the true fibrinous casts, or those that have long been recognized and variously classified by different writers; and these may be divided into four groups: (*a*) The hyaline or "structureless" casts, which contain no formative elements whatever. (*b*) Blood bearing casts; (*c*) Cell-bearing casts; (*d*) Fatty casts.

This classification may be reduced to tabular form, for purposes of systematic study, as follows:

CLASSIFICATION OF TUBE CASTS.

Class I. Mucin Casts.
- (*a*) Simple mucin casts, entirely destitute of formative elements.
- (*b*) Mixed mucin casts, or those that include crystalline or cellular elements, acquired during their formation in the tube.

Class II. Fibrinous Casts.
- (*a*) Hyaline or structureless casts.
- (*b*) Blood-bearing casts.
- (*c*) Cell-bearing casts.
- (*d*) Fatty casts.

Of course, each group may be divided into subgroups, but such wire-drawn distinctions serve no good practical purpose, while they are likely to confuse and perplex the student.

Turning now to the first class, the *mucin cast*, let us consider its origin and pathologic import. It is certainly not the product of an exudate, and is therefore not directly derived from the bloodvessels. This fact separates it at once and forever, as regards origin and pathology, from the fibrinous cast, a point to which I shall allude again presently.

It is undoubtedly true that the mucin cast is formed within the renal tubules, and from material furnished by the tubal epithelium, most likely by the epithelium of the convoluted tubes. Under certain circumstances, the epithelial cells seem to undergo a change equivalent to the "mucoid degeneration" of Ziegler, the protoplasm of the cell being transformed into a mucoid substance, which is afterwards cast into the lumen of the tubule, there to aggregate itself with a similar product of neighboring cells, thus forming the simple "mucin cast," or the long, wavy string of mucin so often seen in urine. The mucin cast is the product of a catarrhal nephritis, a pathologic state to be sharply differentiated from exudative nephritis, with relation to origin, treatment and results.

I have contended for more than ten years that "catarrhal nephritis" ought to have a distinct recognition in our systematic nosology, simply because it is a distinct disease, frequently existing for years and having its own characteristic symptoms and course. The simple mucin cast is the characteristic morphologic product of this disease and establishes its differential diagnosis. Frequently, it is the only reliable indication of the existence thereof, since catarrhal nephritis is not generally accompanied by subjective symptoms of any marked significance.

Together with the mucin cast are frequently found tubal epithelium, leukocytes, and urinary salts, but these have no necessary relation to the pathologic condition indicated by the mucin cast; it alone establishes the diagnosis of catarrhal nephritis.

The "mixed" mucin cast is the "simple" mucin cast plus wherever crystalline or cellular elements may chance to be present. Clinical experience shows that the elements most likely to be present are leukocytes, or crystals of lithic acid or calcium oxalate. The presence of the first indicates that there exists a catarrhal condition of sufficient intensity to induce rapid multiplication of the nuclei of the epithelium, which by reason of the "mucoid" degeneration of the protoplasm of these cells are set "free" and are hence easily inclosed in the mucin cast during its formation.

It may be said that these leukocytes escape from the blood by diapedesis, but if that were true we should have hyaline (fibrinous) casts, instead of mucin casts, since we cannot conceive of a hyperemia sufficient to produce diapedesis without at the same time inviting exudation.

Of course, if hyaline casts *are* present, exudation is proved, and the diagnosis of exudative inflammation is thereby established. It is not at all unlikely that hyaline and mucin casts may be present togther, which would show that the case was in a transition state from catarrhal to exudative nephritis, or *vice versa*, as I have seen in many instances; and it is in just such cases as these that familiarity with the appearance of tube-casts and their diagnostic pointings, is so necessary, since it is impossible to establish a refined diagnosis from any other standpoint.

When the mucin cast includes crystals of lithic acid, oxalates, or phosphates, it is clearly correct to assume that these crystals were deposited in the renal tubules and that they point to a diathetic condition which determined their formation.

From a diagnostic point of view, it is important to note that the crystals are *within* the cast and not adherent to its *surface;* because it clearly warrants the conclusion that they were formed in the renal tubule, and not in the pelvis or bladder.

This being the case, we can readily account for the renal irritation that has lead to the renal catarrh and consequent renal inadequacy, so common when these diathetic factors are present. The diagnostic value and the importance of recognizing the crystals and of determining their nature and location is thus clearly indicated.

In the year 1874 and again in 1879 and 1880, the late Dr. Mahomed drew attenten to "high arterial tension" as a symptom prophetic of chronic interstitial nephritis, and described what he designated as the "pre-albuminuric stage" of chronic nephritis. His writings attracted wide and well-merited attention, but his untimely death occurred before he had completed his researches and experiments. It was his belief that high tension, or irritable heart, with contracted and resistant blood-vessels, preceded albuminuria, sometimes for months or even years. It was his further belief that the approach of renal cirrhosis might be predicted by carefully estimating the degree and constancy of cardio-vascular tension, by means of consecutive sphygmographic tracings.

A broader study of this subject has developed the fact that this peculiar condition is not certainly present, except in cases of well-marked lithemia, and that even then, as Dr. Granger Stewart has observed, some degree of cirrhosis usually precedes the symptom.

Increased or abnormal vascular tension, then, can hardly be regarded as a prophetic or prodromic symptom of renal cirrhosis, although its value as regards differential diagnosis cannot be denied.

I believe, however, that the presence of the mucin cast is of far greater diagnostic value than is high arterial tension under any circumstances.

In the first place, I am satisfied that the great, in fact, the overwhelming, majority of cases of interstitial nephritis are preceded by a long period of faulty digestion and mal-assimilation. This is certainly the case in the vicinity of Chicago, where my observations are chiefly made. This leads to overworked and irritated kidneys, as Dr. George Johnson first pointed out; but more than that, it leads to the devolopment of renal catarrh, as Dr. Johnson did *not* point out.

Vitiated or abnormal urine produces a catarrhal irritation of the kidney, just as vitiated or abnormal ingesta produce a catarrhal irritation of the stomach. The next event is the appearance of the mucin cast long before any recognizable renal lesion occurs, and long before arterio-capillary tension is present in such degree as to be detected, except by the most expert and experienced sphygmographist. In fact, arterio-capillary tension, as a practical every-day symptom for the guidance of the ordinary practitioner, does not yet possess the value that Mahomed, as well as Gull and Sutton, predicted for it. Its recognition pre-supposes the possession of instruments and technical knowledge not generally possessed by those most likely to encounter the cases to which they are applicable. Moreover, as I have already said, the symptom in question does not usually precede the lesion of which it is an indication. Again, vascular tension does nothing more than suggest a possible diathetic antecedent; whereas it is all-important, if such a complication be present, that it be promptly recognized and appropiately treated.

I claim for the mucin cast a position of preëminent importance in the early diagnosis of interstitial nephritis; more than this, I claim that the appearance of the mucin cast is a prophecy of that change which is only too sure to follow chronic catarrhal nephritis.

Moreover, the cause or "diathesis" that preceded and led to the catarrhal kidney may generally be detected by the microscopic study of the urinary sediment that falls with the casts, and as this "diathesis" includes or rather *is* the essential pathologic factor in a given case, its early recognition is most important. All this can be done, has been done, is daily being done, by him who is most concerned in all our researches and experiments, namely, the general practitioner. What seems to me a consideration of no small importance is the fact that the recognition of the mucin cast and the crystals or granules of lithic acid are not matters of opinion or guess-work, or questions of comparative judgments, but simply questions of fact and of fact only; these substances are or are not present, and the conclusion is obvious. The degree of arterio-vascular tension in a given case is, however, a matter of comparative judgment at best, and in every case is a very variable factor, present to-day and absent tomorrow.

It is proper, although perhaps needless, to add that the foregoing statements are based on a long and cumulative experience, upon long and careful study of many cases, some of which are still under observation, and are in no proper sense theoretic or conjectural.

I will now ask your attention briefly to the second class, namely, the true *fibrinous casts*. The presence of the fibrinous cast in urine is abundant proof that sufficient hyperemia exists, or has existed, in the kindey to produce exudation of the fibrin factors, and most probably diapedesis. It is proof, therefore, of the presence of "exudative" inflammation, instead of "catarrhal" inflammation, which I have just considered. I regard it as very essential that this distinction be kept in mind, since it has much to do with the question of treatment, and is all-important in its relation to prognosis. In both forms of disease albumin may be present—present at one time and absent at another. In the early stage of exudative (interstitial) nephritis, the quantity may be so small as to require very careful testing to prove its presence. In catarrhal nephritis the amount is always very slight, many times amounting to no more than a trace. As a diagnostic symptom, therefore, albuminuria has very little value, and no uniform value. Tube casts, however, have a positive as well as uniform diagnostic value, provided their interpetation is understood. One of the most important points settled by them is the question whether, in a given case, we are dealing with catarrhal or exudative inflammation.

The *hyaline cast*—the first variety of the second class—is the simplest and most innocent form produced by exudative nephritis. It is so small and so translucent that it frequently escapes detection, unless the examination happens to be made by an expert microscopist. Its diagnostic value depends mainly upon its frequency and upon its form or symmetry. If only an occasional hyaline cast is found it goes to show that exudation is very slight; that it is in its incipiency, or has well-nigh ceased—a question that can easily be decided by reference to other symptoms that do not come within the scope of this paper. If many are present, exudation is still going on actively. In my own examinations I lay great stress upon the form of the cast. If it is smooth and symmetrical, or free from "twists" or distortions, it seems to one to indicate that it was formed in a tube, not yet disturbed by the encroachments of pathologic connective tissue; but if the cast is not smooth and regular on its surface, and if it shows angularities, as though it had been violently bent or twisted, I am equally confident that the cirrhotic process has already made considerable progress. I regard this a very important diagnostic indication, and one that has helped me very greatly in seeking grounds upon which to found a reasonable prognosis. It will save repetition if I say now and here, that the same observations with reference to symmetry and form apply in equal degree to the varities of casts that are yet to be mentioned.

Blood-bearing casts indicate a hyperemia sufficient to cause hæmorrhage into the renal tubules, although it may be very slight indeed. Hence, blood casts are commonly regarded as proofs of acute nephritis, and of that only. In every such case, however, it should be borne in mind that while the blood cast may be the immediate result of an acute lesion, a long-standing chronic lesion may have preceded it, and careful search for other forms of casts should be made. In other words, a prognosis founded upon blood casts alone is quite likely to disappoint the expectations of physician and patient. In every case of apparent acute nephritis careful search should be made for casts indicative of pre-existing chronic disease, and it is not wise to prognosticate favorably until several consecutive examinations have failed to disclose the presence of the casts of chronic nephritis. I have rarely encountered cases of so-called "idiopathic" acute nephritis that were not preceded by undoubted chronic nephritis.

Cell-bearing casts, the "epithelial casts" of authors, are so common, and are generally so well understood that little need be said about them, except to emphasize some two or three points. Care should be taken to determine whether the cells adhere to the surface of the cast or are incorporated therein. In the former case they may not be the result of pathologic exuviation, but they may represent only cells wasted by wear and tear, whose escape has been anticipated slightly by the friction of the cast as it passes down the tubule. In the latter case they must have fallen off from purely pathologic causes. The shape or form of cell-casts is as significant as that of hyaline casts. Casts from a cirrhotic kidney are likely to be twisted and distorted; casts from a case of tubal nephritis are likely to be straight, symmetrical, and rather large. In either case the cells may be cloudy, granular, or filled with glistening droplets of fat, thus indicating with great precision the stage or condition of the case under examination, as the more advanced the process of fatty degeneration of the cells, the more advanced the destruction of the kidney in which they were produced.

Fatty casts are evidences of the completion of the destructive process of which the hyaline cast marks the beginning. They are more or less numerous as the case is more or less advanced in its ultimate pathologic history. They are more or less eroded and irregular as the tubule is more or less denuded of its epithelial lining, and otherwise roughened in its lumen. They are more or less twisted and distorted as the tubule is more or less pulled out of shape and symmetery by the encroachments and contractions of the pathologic connective tissue. Thus they indicate the stage as well as the form or type of the disease of which they are the product. With fatty casts may be mingled hyaline and epithelial casts; in fact, the three forms are frequently found together. The stage of the disease in a given case would be pretty accurately indicated by the predominating type of casts; but it would be evident that some minor portion of one or both kidneys was either more or less advanced in the pathologic change than the chief portion of these organs.

I have not regarded the *waxy* or *amyloid* cast as entitled to a separate grouping, because it is only an accidental variety of fibrinous cast, presenting no inherent peculiarities of structure, and therefore indicating no pathologic changes in the kidney that are associated with its presence. Waxy casts are almost invariably hyaline or structurless; if they happen to contain the peculiar waxy or amyloid material implied by their name the iodine test will promptly demonstrate the fact, and thus establish the diagnosis of waxy kidney; but clinical experience shows that the amyloid disease can seldom be differentiated in this manner. In conclusion, permit to me add that I have long been persuaded that the course of a given case of acute or chronic nephritis, the type of the disease, the sequence and nature of the pathologic events taking place in the kidney, and the grounds for a reasonable positive prognosis, may be evolved from an intelligent and careful consecutive study of the tube-casts alone. Other factors, of course, enter into the diagnosis, and their value and importance I do not question, but I believe, with Formad, of Philadelphia, that the tube-cast conveys more actual and accurate information to the practised microscopist than any or all other symptoms or signs.—I. N Danforth, A.M., M.D., in *Med. News.*

METHODS OF IRRIGATION AND ANTISEPSIS OF THE COLON AND RECTUM IN DYSENTERY.

In the earlier methods of rectal and colon treatment, water was thrown into the bowel, retained for a time and then expelled. Some of the most excellent results are reported from this plan and within recent date. But this cannot but be an imperfect way of cleansing the bowel, although it answers well enough for bringing an antiseptic fluid in contact with the wall of the bowel and with germ-breeding mucus. The objection to it is, the necessity of distending the inflamed coats of the bowel up to a point where injury may be done, if any considerable quantity of water is injected; its advantage is that by this distention the antiseptic fluid washes the inner wall more thoroughly than without it. The method is better fitted, therefore, for subacute cases or those tending to become chronic, than for the acute inflammation with necrosis of the mucous coat. Properly speaking, this method is not irrigation at all, and the only procedure deserving of this title is that in which there is a *free* and *immediate escape* of the water thrown in; and even without argument, it is apparent that in this way only can the bowel be thoroughly emptied and made aseptic.

The mechanical difficulties are very much greater in the efforts to irrigate the colon than in the case of the rectum. To wash the *rectum*, a double, in-and-out, hard-rubber tube, passed into the rectum five to eight inches, through which flows a current of water from a fountain syringe, answers the purpose well. The only objection is the pain which attends the introduction of a hard, inflexible instrument through the irritable anus. Two soft-rubber tubes passed side by side, the larger one for the escape current, are more comfortable for the patient and better in every way; No. 17 English (29 French) is a good size for the smaller tube, the escape tube can be two sizes larger. A large-sized soft catheter will do very well for the entering current. The double-current soft-rubber tubes are not so successful; their soft and thin walls are pressed upon by the sphincter and escape of fluid is obstructed. Then again there is an advantage in having two separate tubes, as either can be pushed up or down as it is desired to wash different parts of the rectal wall; they are, therefore, to be preferred to any double-current tube. The disagreeable sensation of distending the anus passes away in a few moments and the patient gets so much relief from the operation that he ceases to object; preliminary cocaine application may be used if the suffering is great.

All that is needed, then, for this operation are a fountain or Davidson syringe, attached to a small rubber tube or large silk catheter, an escape tube of large size of soft-rubber, made long enough by the attachment of a long piece of tubing, so that the fluid escapes into a vessel on the floor. The hand holds and guides the tubes and changes their position from time to time.

The *colon* cannot be distended with water or irrigated with the same facility. That water can be made to pass through the sigmoid flexure there can be no doubt; but the passage of a tube through the flexure into the colon is a difficult task. If this is tried on the cadaver with the abdominal wall removed, one can see how difficult it is; the end of the instrument must describe a complete sharp curve on itself, as if it were about to tie itself into a knot. Even with the hand pressing on the passing instrument and guiding it, it is not easy to accomplish. It is clear from the experiments which I have made, that a partially flexible tube, like the old-fashioned stomach tube, should never be used, and that a small tube does not pass as readily as one which more nearly fills the bowel. Distending the rectum with water as the tube advances, does not favor the passage as much as leaving the bowel empty. The tube finds its way better along the mucus-covered mucous coat. I speak now only of experiments on the cadaver, when the eye is watching the process; the contrary is the general opinion of physicians from efforts on the living patient. But the turning of the instrument on itself in a cavity filled with water, when the end strikes against the wall is very likely to happen and can easily be mistaken for the onward progress of the instrument. In the rectum the finger introduced discovers the error of direction, but higher up it is not possible to do so.

The conclusion of many trials must convince anyone that the attempt to make the instrument enter the descending colon as often fails as succeeds. The difficulties show that all colon irrigation must be done by one tube. I have tried the double-current stomach irrigator and have had constant failure—the closure of the lumen from twists of the tube or from outside pressure prevents the exit of the injected fluid; so that the only way in which this can be accomplished is to force half a pint or one pint of fluid into the colon and then allow it to escape at once through the same tube; in this way the colon and sigmoid can be thoroughly washed out.

What are the indications for the choice of colon or rectal irrigation? In all cases of so-called catarrhal dysentery where the stools are small, contain blood and mucus and in all cases, mild or severe, where the general or local symptoms are relieved by washing the rectum, no attempt need be made to do more than this. For even when the disease extends into the sigmoid flexure and colon, the curative influence is transmitted along the bowel wall upward, as gargling the throat benefits laryngeal inflammation. If the patient continues to have fever, delirium, great restlessness, or other symptoms of general infection, or if stools are large, thin, with a gangrenous odor, containing blood, mucus, and tissue-like shreds, then the attempt should be made to make the tube pass in the sigmoid for higher injection. If the patient is on his left side, with hips raised, a gentle current may pass from a raised fountain syringe into the colon, even if the point of the tube has not passed beyond the first curve of the "flexure." I need not add that there is a danger of perforating an ulcer, even without much force being used, so that the operation should be done with the greatest gentleness. In the great majority of cases of dysentery as we see it, rectal irrigation may, I hope, by continuing experience be proved to be all that we need to gain the desired end.

The *quantity* of water used depends upon the circumstances of each case; as a rule it should in and out of the bowel until it runs clear, and both in the case of the colon and rectum the amount thrown in should be equalled or almost equalled by the amount which escapes; if the egress is not free the operation must be stopped until the trouble is remedied. There need be no limit to the quantity of water.

The *frequency* of irrigation is to be regulated by the number of stools, state of decomposition in the bowel, and other conditions; a good rule *is to try to prevent the patient from having any stools at all;* let his bowel be emptied only *at your command* through the inserted tube; at first once in three hours, later three times daily, as the outflowing fluid contains less blood and has less odor. *Keep the rectum empty and clean*, is the one rule.

At first wash the bowel once in three hours; later three times daily, and so on with diminishing frequency as there are less odor, less blood, and finally less mucus. When mucus is no longer seen in the form of thin flakes the patient may be said to be well; but for a few days one daily irrigation serves a good purpose. Relapses should at once be met by a return to local treatment.

As an *irrigating fluid* water may be used plain, hot or cold, or may contain in solution any of the numerous antiseptics. Extreme cold or very hot water may be injected, but both must have a more or less irritating effect, and their action, in the nature of things, is intermittent. If a continued current of cold or hot water could be kept on the inflamed surface, the case would be different. The surgeon would not apply great heat or cold for five minutes to an inflamed ulcer of the skin and then leave the ulcer alone for three or more hours. It may be practicable to keep water flowing in and out of the rectum for many hours, but few patients could bear such continued distention of the sphincter.

Almost every *antiseptic* has received warm recommendation. Fifty-three cases of acute dysentery were treated at the Military Hospital at Oran with a 1:5000 bichloride solution. After the first day the stools were fewer in number, and in three or four days the mucus disappeared; tenesmus and pain were soon lessened.

Lemoine treated fifty-four cases of dysentery with solutions of corrosive sublimate, 1:5000. Six ounces were injected into the rectum twice daily; later a solution of the strength of 1:3000 was injected twice daily. The fluid was not retained longer than ten minutes. Improvement followed immediately, and acute cases were cured in from one to three days. No systemic poisoning followed in any case.

Notwithstanding all this favorable testimony, the dangers of ulceration in the colon being set up by the remedy, and the grave doubts lately raised as to the value of corrosive sublimate as a germicide in just such conditions as exist in dysentery, deter one from using it at all. Under no circumstances should it be employed without an immediate outlet for the solution.

Tannin destroys bacterial life and renders ptomaines innocuous; it is recommended by Cantani for typhoid fever, and it may have as good an effect in dysentery for the same reason.

Salicylic acid, thymol, aseptol, sulpho-carbolate of zinc, alum, hydrochloric acid, carbolic acid, boric acid, the sulphites and hyposulphites have all been used and advised, but no sufficient number of cases have been treated by any one of these as to lead to its preference over all other remedies of the same class.

Boric acid and carbolic acid are the only antiseptics I have used frequently; the results have led me to think that the former, or both together, give all we want, and as I believe that a great part of the benefit comes from the cleansing and complete emptying of the rectum, the least irritating and least dangerous germicide ought to be preferred.—W. W. Johnston, M.D., in *Am. Jour. Med. Sci.*

PRURITUS.

Pruritus may depend on any of the following causes:

1. *Local irritation* from rough clothing, parasites, unhealthy discharges (saccharine urine, leucorrhœa).

2. Inflammations of the skin; eczema, lichen, early psoriasis, pemphigus; slightly in roseola; sometimes severe after the local use of croton oil or tartar emetic. Desquamating syphilis may itch, but cutaneous affections of the lower layers of the cutis, as a rule, do not itch; and these comprehend most specific eruptions and leprosy.

3. *Reflex irritation* from the uterus or stomach in urticaria, pregnancy, intestinal worms, or from the kidneys.

4. The presence of certain *substances in the blood*, such as biliary acids and copaiba.

5. *Undiscovered causes*, as in true prurigo and strophulus. Kaposi speaks of pruritus cutaneus universalis as a true idiopathic neurosis.

Duhring has described *pruritus hiemalis* due to the effect of cold, and most apt to be felt by pruriginous persons who put on loosely knit underclothing.

Many persons are attacked with pruritus on putting woollens next to the skin, especially Scotch wool.

The uric acid diathesis, gout, and plethora are sometimes causes of pruritus. Certain articles of diet, such as shell-fish, lobsters, beer, coffee, mushrooms, and tomatoes, are thought to cause pruritus in some persons.

Albuminuria may be accompanied by itching due to irritation of the peripheral nerves or of the sensory centres by toxic substances in the blood. Depression of the spirits and various emotional disturbances may give rise to pruritus. Opium causes pruritus, and Hardaway says that the same symptom is due to the inordinate use of tea, and to oatmeal. A rural tradition ascribes a form of itching to the use of buckwheat. The "Prairie itch," or "Texas," or "Kansas" scratches, is in some cases a form of eczema, in others scabies.

Nasal pruritus is thought to indicate the presense of worms in the intestinal canal in children, or it may precede an asthmatic paroxysm in adults. Pruritus ani in children is due to ascarides, or to phimosis; in adults it accompanies the disorders incident to a sedentary life, hæmorrhoids, fissure, fistula, constipation, enlarged prostate, etc.

Pruritus pudendi may be due to diabetes, vesical calculus, leucorrhœa, varix of the labia; or it may be due to the irritation by the menstrual fluid, and is then only present during its flow. Pruritus of the legs, if not pruritus hiemalis, is generally due to plethora or uræmia. Limited to the feet, pruritus is caused by the accumulation of epithelium, not removed by ordinary ablution. Pruritus senilis, not due to pediculi or to diabetes, is probably caused by atrophy of the papillæ of the skin.

The internal treatment of pruritus should be guarded very largely by the condition of the patient and by the cause of the itching.

The external treatment must necessarily depend very much upon the local conditions present in each individual case, but some of the following formulæ will be found very useful:

℞—Camphoræ,	
Chloralis hydrat.,	āā ʒ j-ij.

Rub together until liquefied; then add slowly, with friction:

Ung. aquæ rosæ,	℥ j.

M.—S. Ointment. —*Bulkley.*

℞—Hydrargyri chlorid. corros.,	gr. j.
Pulv. aluminis,	gr. xx.
Amyli,	ʒ jss.
Aquæ,	ʒ vj.

M.—S. Apply locally. —*Goodell.*

℞—Acidi carbolici,	ʒ j.
Potassæ fusæ,	ʒ ss.
Aquæ,	℥ x.

M.—S. Lotion. —*J. C. Wilson.*

℞—Naphthol,	gr. ccxxv.
Saponis viridis,	ʒ xijss.
Cretæ preparat.,	ʒ ijss.
Adipis,	ʒ cxxv.

M.—S. Apply to parts, and then powder with starch.

℞—Sodii biboratis,	℥ ss.
Morphinæ sulphatis,	gr. vj.
Aquæ rosæ,	℥ viij.

M.—S. Lotion; apply twice daily.

—*Meigs.*

℞—Ol. staphisagriæ,	ʒ j.
Adipis,	℥ j.

M.—S. Apply once or twice daily.

—*Balmanuo Squire.*

℞—Aquæ laureocerasi,	℥ j.
Acidi nitrici dilut.,	ʒ ss.
Acidi hydrocyanici dilut.,	ʒ iv.
Glycerini,	ʒ j.
Lactis amygdalæ,	℥ xij.

M.—Ft. lotio. For pruritus vulvæ.

—*Greenhalgh.*

℞—Acidi hydrocyanici dilut.,	ʒ ss-j.
Infusi altheæ,	℥ v-viij.

M.—S. Lotion.

—*Fox.*

℞—Potassii cyanidi,	gr. xv.
Aquæ laureocerasi,	℥ viij.

M.—S. Lotion.

—*Anderson.*

℞—Liquor carbonis detergentis,	ʒ ss.
Glycerini,	℥ j.
Aquæ,	ad ℥ x.

M.—S. Lotion.

—*Sparks.*

℞—Acidi benzoici,	gr. cx.
Ol. caryophylli,	gtt. xl.
Alcohol,	℥ ijss.

Solve, et adde:

Cerati simp.,	℥ viij.
Bals. Peruvianæ,	℥ j.

M.—Ft. unguent. Especially good for scabies.

—*Potter.*

℞—Acidi hydrocyanici dilut.,	ʒ ij.
Sodii boratis,	ʒ j
Aquæ rosæ,	℥ viij.

M.—S. Lotion.

—*Fox.*

℞—Potassii cyanidi,	gr. vj.
Pulv. cocci,	gr. j.
Ung. aquæ rosæ,	℥ j.

M.—S. Ointment.

—*Anderson.*

℞—Cretæ preparat.,	℥ j.
Coal tar,	ʒ j-ij.
Ol. lini.,	℥ ijss.

M.—Ft. unguent.

—*Potter.*

℞—Zinci oxidi,	ʒ jss.
Potassæ bromidi,	ʒ ijss.
Ext. cannabis indicæ,	ʒ ss.
Glycerini amyli,	ʒ vijss.

M.—S. Wash vulva with very hot flax-seed tea, and apply above.

—*Ménière.*

℞—Acidi carbolici, ... ʒ iv.
Glycerini, ... ℥ j.
Aquæ, ... q. s. ad. Oj.
Ol. menthæ pip., ... ʒ jss.
M.—S. Use as a spray, with atomizer.

—*Hardaway.*

℞—Thymolis, ... ʒ ij.
Liq. potassæ, ... ʒ j.
Glycerini, ... ʒ iij.
Aquæ, ... ℥ vij.
M.—S. Lotion.

—*Crocker.*

—W. F. Waugh, in *Times and Register.*

OUR MISTAKES.

(*Concluded from p. 375.*)

It is curious to observe how often our cases run in pairs or groups. With the last case fresh in my mind I was called to see a gentleman in the north. On going into his room his wife said, "Do not bother him by many questions." On asking him to tell me of his complaint briefly, he, pointing to the inside of his thigh, said, "I can tell you in three words, 'It is pain there.'" I asked for vaseline, examined the rectum, and found a malignant mass in the pelvis—a sad solution of a case which had misled two excellent practitioners to suppose he suffered from disease of the pelvis of the kidney. These cases show how narrowly we sometimes miss a diagnosis, and show how important it is to take note of these slight and faint hints if we are to save ourselves from failure. We must, however, take heed lest a great success in diagnosis and treatment unduly impresses itself on our minds and we begin to seek for the same thing, and do the same thing in every case. It is easy to yield to this temptation, and we need to guard ourselves. I have again and again seen even great men plant their favorite diagnosis on the most unlikely cases. Two or three patients of a really great physician came to me a few years ago, each stating they had irritation of the ureter, until at last I was able to say, "Oh! I see you have consulted Dr. So-and-so." In each of these cases the true ailment proved to be lateral flexion of the uterus. Not that I have escaped this mental infection, as I am free to admit I may probably have treated irritated ureter for lateral flexion. Nothing short of a large view and a well-balanced mind can save us from this kind of thing.

An illustration of another kind of mistake which sometimes occurs as the result of a paucity of experience and a good deal of science may be here introduced. It also illustrates the so-called *nimia diligentiæ* in treating a case by everything but the right thing. I was called to see a favorite child of wealthy people in Yorkshire, said to be suffering from inflammation of the brain. I found a strong plethoric child, with flushed face and suffused and congested eyes. He was suffering from pain in the head, restlessness and great irritability, together with anorexia and a coated tongue. He was in a darkened room, two nurses were in attendance, and an apparatus for circulating iced water over the head was in active operation. The temperature was taken at frequent intervals, and repeated doses of aconite were being administered. The expression of the child's countenance and his evidently clear intellect did not convey the idea of meningitis to my mind, and I asked when his bowels had acted. No one quite knew, and it was clear they had not acted for a day or two. I gave my opinion to the medical attendant that it was a case of disordered secretions, and insisted on giving three grains of calomel, followed by a dose of senna. We met again in a few hours, and found the patient sitting up in bed quite cheerful and comfortable, after a free purgation, and he was soon quite well. I do not mean to cast any reflection on what is called scientific medicines but I think an old-fashioned doctor would probably have purged at the outset and saved all this bother. Let us never forget the marvels achieved by our old friend calomel.

To omit the abdomen as the most fruitful field of all sorts of mistakes, would be to omit the character of Hamlet from the play, The many different organs contained in it, ministering to functions so different as digestion, excretion, assimilation, and reproduction, give rise to such enormous varieties of physical signs and symptoms that it would be strange indeed if we did not often fail to make an accurate diagnosis and use appropriate treatment here. Added to this is the ever-varying condition of the abdominal walls, due to distension and emptiness of the hollow viscera, the engorgement of the solid organs, and the amount of abdominal fat which often comes and goes with remarkable rapidity. These difficulties, from complication of organs and their changeable condition, can hardly be said to exist in the head or chest, but they are somewhat compensated for by the ease with which the abdomen can be manipulated.

To mention a few of our chief difficulties is all that can be accomplished in a short address. First, there are those connected with abdominal aneurysm, on which a book might be written, and an amusing one, for I shall never forget, when preparing an article on this subject, the extraordinary hits and misses in diagnosis which turned up in looking through the scattered literature of the subject. Existing aneurysms had been diagnosed as renal, hepatic, ovarian, and uterine tumors, and conversely nearly every variety of abdominal tumor, and often "no tumor at all" has been diagnosed as aneurysms. My well-known case of aneurysm of the abdominal aorta was at one time treated for lumbago, and was subsequently said to be a fæcal accumulation, by a man of great experience. The pelvic department of the abdomen is even more dangerous ground than the abdomen proper. It is here that confusion still reigns, as evidenced by the number of so-called exploratory incisions now made in that region. A good book on the diagnosis of pelvic disease is still wanted, but I doubt if the data for it have yet been obtained. The almost infinite variety of conditions brought about by pregnancy and menstruation almost defy classification, and thus general rules are almost out of the question. For instance, ovarian tumors, simple as their diagnosis generally is, often deceive the most experienced, and we must not rely on general rules even here, or the opened abdomen may possibly stagger our nerves and try our resources. Twice over I have been misled by trusting too much to a resonant note in the flank, and a dull abdominal dome, where I discovered our mistake to be due to the fact that the intestines were bound down by adhesions in the lumbar region so closely as to give resonance there in ordinary ascites. Then, again, there are mistakes attaching themselves to pregnancy, about which some experienced accoucheur might give a highly interesting discourse. I recollect a startling case where a patient was about to be admitted to an institution for the removal of an ovarian tumor; but her own doctor thought he would like to do the operation himself, and sent her to me to confirm the diagnosis. Labor pains came on while she was in my waiting-room, and she had just time to reach home in a cab before she was confined. Then, again, there are those trying cases of women who marry late in life, and, being possessed by a longing to have a child, arrive at the menopause and begin to swell visibly. Beware of such women. If you say they are not pregnant they will not believe you, because "they feel a movement which cannot be mistaken." If you for a moment favor their wishes, and incautiously admit it may be so with them, you have staked your reputation on a broken reed, and a day of reckoning lies in store for you some few months hence, "when it does not and will not come off." To be called in under such circumstances is one of the most trying and delicate tasks for a consultant. By a word or a look he may shatter his friend's reputation throughout a wide circle; and yet the truth must be told, either abruptly or—far better—by a gradual undeceiving of the patient's mind.

Far more serious difficulties surround us when we are face to face with ectopic or tubal gestation. A certain diagnosis in many of these cases is impossible without the exploratory incision, and even then the complications may prevent a satisfactory diagnosis—nay, more, I have seen a case of this kind so complicated that a post mortem examination failed to reveal the true state of the case. These are cases of the third order, in which a faulty diagnosis casts no blame on us. Let me give a history of a case illustrating the extreme difficulty or impossibility of arriving at a certain diagnosis. I do so the more readily because I believe the case is unique.

Some years ago the late Mr. John Hope and I saw a patient suffering from intolerable pain in the testes. Both testicles were enlarged, the left as large as a goose's egg, the right slightly smaller. As the enlargement and sufferings increased, especially on the left side, we decided to remove that testicle. On doing so we found a healthy testicle encased in dense concentric layers of suet-like fat about an inch thick. The relief obtained made the patient urgent to have the right testicle removed too, which was done with complete relief. Some months afterwards this man came to me again in a deplorable condition. His body was emaciated, but the abdomen had become enormously enlarged and extremely painful. The abdominal swelling was uniform and dough-like on palpation and absolutely dull on percussion, without any evidence of fluctuation. His chief symptom was a mucous diarrhœa over which remedies had but slight control. He died of exhaustion. On making a post mortem examination, we found the enlargement was entirely due to the presence of hundreds of fatty tumors scattered throughout the folds of the peritoneum. The mesentery was a mass of them. They varied from the size of a pea to that of an orange, and each was composed of concentric layers of suet-like fat similar to that found around the testicles. The smallest were concentric as distinctly as the largest. The most remarkable developments were in the appendices epiploicæ, each of which extended into the abdomen like a large bunch of grapes studded with fatty nodules. We might, if we had had a similar experience, have divined from the testicular encasements the real cause of the abdominal enlargement; but, lacking this, I think it was impossible to make a sure diagnosis. But I must draw this part of my subject to a close, or I should like to have alluded to the difficulties which surround the medical men who is called to see a patient in the initial stage of any of the acute febrile diseases, especially of infectious diseases. If he speaks of his suspicion too soon he may find he has given needless alarm; if he hesitates too long he may be blamed for not speaking soon enough. A wary outlook, an expectant state of mind, and a knowledge of human nature are all needed to save him from a false position. Lastly, the mistakes which occur in the treatment of disease may be divided into those arising from a false diagnosis and those in which the wrong remedy is used wherever diagnosis is correct. I need not say that for the most part a false diagnosis is the cause of most of our mistakes, and this has already been dealt with. With regard to the first application of the treatment when the diagnosis is correct I may say this is often owing to the want of a true appreciation of the temperament and constitution of the patient, whereby we are led to give what is good enough for the disease, but bad for the patient. Let us ever remember, therefore, that we are treating patients as well as diseases, and what may, rigidly speaking, be the right thing for the disease is often the wrong thing for the patient. Take the case of tonics, such as iron and quinine. I know of nothing which has destroyed the confidence of patients, both in medical men and medicines, more frequently than the administration of these remedies to debilitated, anæmic, and phthisical patients when they were quite unable to bear them. How often do we see a patient in the early stage of phthisis suffering from the miseries of dyspepsia added to those of his disease. And yet we find such a patient is being treated by cod-liver oil, or iron and quinine phosphates, which only add still further to his misery. Or, again, take the case of anæmia in which the fault lies in a weak and irritable gastric membrane. Nine out of ten of such patients become considerably worse when treated by ferruginous tonics. Or, again, take the case of a patient recovering from an attack of gastric catarrh: to select the exact moment when that membrane will be able to bear a tonic, and decide what tonic to give it, is one of our most difficult problems. In early phthisis, in anæmia, in the exhaustion of gastric catarrh, I rarely venture on any so-called tonic medicine, and prefer to give aids to digestion and sedative correctives until I am well assured the stomach will tolerate such remedies as iron, quinine, or cod-liver oil. I cannot help thinking these misapplications of the right remedy for the disease in unsuitable cases is the secret source of that sceptical attitude which many able men have assumed towards the beneficial action of medicines. In early life they expected too much, and blamed the medicine when really it was its application which was at fault, and so they have lost faith. I, for my part, have an undying, nay, an increasingly vital faith, in the virtue of medicines, and I hope to live to see the day when mankind at large will accord to rational scientific medication the place it undoubtedly deserves to hold in its esteem. Many hints which I could give as the result of thirty years careful study of the action of medicines crowd upon my mind, but I must not trespass further, except to say that much depends upon the method of combining our remedies. I believe in combinations; without them we cannot put limitations to the action of our drugs, and we cannot guide them to the right spot. One medicine, so to speak, conditions another, and some are complemental to each other. Take digitalis as an example. Do we wish to act upon a weak heart in an anæmic subject we combine it with iron. Do we wish it to act upon the heart where all the organs are engorged from regurgitation in a plethoric subject, we give it combined with mercury and pugatives; or, do we wish to relieve pulmonary congestion arising from the same cause, we combine it with ether and ammonia; or, do we wish it to act on a sluggish kidney, we add some suitable diuretic. We thus, as it were, condition and conduct our remedy to do its work in the right direction. To do otherwise would lead to serious mistakes, and might shake our faith in the power of this mighty drug.—W. Murray, M.D., in *Lancet*.

* * *

A Case of Spasmodic Torticollis Treated by Avulsion of the Central End of the Spinal Accessory Nerve.—A lady aged twenty-eight was brought to me in August, 1885, by the late Dr. Troutbeck, for very troublesome spasm of the left sterno-mastoid muscle. She first experienced trouble in the neck eight years before, soon after the death of a near relative; the jerking of the head had persisted ever since, gradually getting worse. The patient was a tall, thin girl, and delicate looking. There was no history of fits; she had had facial neuralgia, but not severe migraine. The spasm appeared to be entirely limited to the left sterno-mastoid muscle, and was so severe and constant as entirely to preclude the patient from mixing in society, and at night it was some time before she could get to sleep. Dr. Angel Money applied the constant current to the muscle on nine occasions, but with no benefit; indeed, the spasms appeared to be increased in severity. So on Sept. 10th, 1885, with Mr. Hudson's assistance, I exposed the spinal accessory nerve by means of an incision along the anterior border of the upper part of the sternoid-mastoid muscle, intending to stretch it and excise a considerable portion. In stretching it from the central end I felt the nerve gradually give way, and I pulled out a long, slender nerve from the jugular foramen and excised four inches and a half of it. No special symptoms were noticed from the tearing of the nerve roots. The wound healed without complication, and the patient returned home on Sept 23rd. She called on me on Sept. 8th, 1886. She was then in much better general health, her head was held erect, and was quite steady. She could turn it freely to the left and about half the distance to the right, and she was gaining power in it. The left sterno-mastoid muscle had completely atrophied, and the cervical portion of the left trapezius muscle was markedly smaller than the right. The patient was able to mix again in society, and was very pleased with the result of the operation. A year later (October

1887) Dr. Troutbeck saw her, and reported to me that she was "quite well, except for occasional fatigue felt in the neck; no jerks." The satisfactory result of this operation was, in my opinion, chiefly due to the fact that the spasm was limited to the one muscle—the sterno-mastoid. I have on two subsequent occasions intentionally removed the central end of the spinal accessory nerve in the same way for spastic torticollis. The operation is quite a simple one, the delicate roots of the nerve rupture and a long tapering filament is drawn out from the spinal canal. These two cases were treated last year and it is too early to pronounce with certainty upon the result of the operation in them.—A. Pearce Gould in *Lancet.*

On Hot Baths.—Dr. Benjamin Howard has been drawing attention to the method of bathing adopted by the Japanese. The general opinion is that a frequent repetition of the hot bath has a debilitating effect. The *warm* undoubtedly is, but whether a very hot bath would have such an effect if continuously used has not been put to the test in this country. It would be worth trying by people who suffer from rheumatism or who cannot take a cold bath. Dr. Howard writes: "In hygienic matters the Japanese have everywhere a habit which may have a lesson for us. In their nightly bath and morning wash the water is never cold, never warm, but always as hot as it can be borne. To foreigners this habit seems very surprising, but the most inveterate Englishman, if he stays in the country long enough, abandons his cold tub in its favor. The cold-taking, which it is suspected must follow it, is found not to occur if the water has been hot enough. This heat is maintained by a little furnace beneath the bath. In the bath the bather or bathers take a prolonged soaking, the washing proper being done on the bath-room floor; then follows a second and final soaking, drying with towel, and a lounge in bathing wrapper. This habit seems to promote softness and suppleness of the skin, and by persons inclined to rheumatism is soon found to be altogether preferable to the cold bath in every particular. The poorest of the Japanese hear of a cold bath with amazement, and would be sure the man who used it must be a barbarian. With respect to the superiority of the hot bath over the cold, I have come to find that in my own case certainly the Japanese are right."—*Popular Medical Monthly.*

The Treatment of Epilepsy.—Dr. Guy Hinsdale has shown from his clinical observations that potassium bromate shares with the bromides the power of controlling epileptic seizures, but it is an irritant intestinal poison, lowering the pulse and depressing the heart to such a degree that in most instances it had to be abandoned. Magnesium bromide exerted an undoubted power in controlling the attacks, both as to frequency and severity; there was, however, apparently a greater liability to facial erutpion than in the case of potassium or sodium bromide, and Fowler's solution of arsenic was usually given in addition. Hydrobromic acid was fairly successful; it is not likely to cause acne nor muscular depression, and, in some cases, it is usefully added to lessened doses of alkaline bromides. Certainly, in some instances, it does aid digestion or at least has no tendency to impair that function. The use of nitro-glycerin has not been sufficiently encouraging to insure its continuance. In some cases, when the improvement was most striking at first, the attacks soon returned, and the remedy had to be abandoned. Nitrite of potassium proved too depressing and produced marked cardiac irritability. Antifebrin succeeded in keeping the attacks, in one case in which the bromides had failed, down to such a number that life was useful, but usually only temporary improvement was noted, and in a few weeks it was necessary to return to the bromides. Sulphonal was used in several cases with more or less unsatisfactory results, and appears to answer admirably as a substitute when the bromides have to be discontinued on account of bromism or other disagreeable complications. He has used sodium biborate, lithium biborate, tincture of cannabis indica, tincture of digitalis, ammoniated copper, and antipyrin, but none of these remedies maintained themselves. He has fallen back, then, upon the bromides of sodium, potassium, and lithium, employing most frequently the sodium salt, which is well borne for long periods, when arsenic is used occasionally to check cutaneous disturbances.—*International Medical Magazine—Am. Jour. Med. Sci.*

The Excision of Strumous Cicatrices of the Neck.—In a paper read before the French Congress of Surgery, *Le Progrès Médical*, Calot reports signal success in removing the unsightly and often pigmented cicatrices resulting from the spontaneous opening of suppurating lymphatic glands of the neck. With a bistoury he removes the entire extent of altered skin, encroaching one or two millimetres upon the normal integument. The edges of the wound are then freed from the underlying tissue and brought together with fine sutures, so as to make a linear closure of the exposed surface, no drainage being required. The result in all of thirteen cases thus treated has been eminently satisfactory, showing only a fine linear scar in place of the former ugly, irregular cicatrix.—*Am. Jour. Med. Sci.*

A new building is in course of erection for the School of Medicine of the University of Buffalo.—*Med. News.*

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science, Criticism and News.

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AGENTS.—DAWSON BROS., Montreal; J. & A. McMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

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POLEMIC MEDICINE.

The *odium medicum* is an old thing, and has been from time immemorial at once the bane and the cause of progress of the healing art, as well as the cause of many a gibe from the laity. It exists both as between individuals of the same school, and between the different schools, and must always exist, seeing that opinions must differ in a subject which deals, as that most brilliant literary member of our profession, Dr. O. W. Holmes, says, "not in certainties nor in demonstrations, but chiefly in probabilities." It has been left to the theologians to develop a branch in their curricula, entitled Polemic Theology. Perhaps the medical fraternity, being so occupied in study more important, are kept too ignorant of polemic medicine, and do not know enough of the views and systems taught by other schools than that in which each has been brought up. The "regular" practitioner, in proportion as he is an honest and capable man, can see in the homœopathic practitioner, with whom he refuses to consult, only a knave or a fool. His judgment is not usually based on calm review of the authorities worshipped by his opponent, and in that far cannot be said to be scientifically sound. And it would take so little reading of homœopathic manuals to satisfy a scientifically trained medical man of their utter fallacy, that any practitioner can easily form an independent judgment if he chooses. Dr. G. M. Gould, of Philadelphia, offers a prize of $100 for the best essay of not more than 15,000 words, type written, placed in his hands by January 2nd, 1893, on "The Ridiculous Pretensions of Modern Homœopathic Practice." A jury of physicians will read the essays, and the best will be printed for distribution among the laity, the main condition being that the essay "in simplicity and directness should be adapted to the commonest lay understanding." Giving Dr. Gould credit for the best intentions, we venture to say that the scheme is too much like fighting the devil with fire. Homœopathic practice, as judged by the perusal of their materia medica in both text-books and drug lists of commercial concerns, stands very much nearer the laity than does scientific practice, is very much more easily "understanded (*sic*) of the people," and lends itself far more readily to *ad captandum* argument, and grossly misleading quasi-scientific analogy.

It is all very well to laugh, as does O. W. Holmes, that "if a billionth of a grain of sugar won't begin to sweeten my cup of tea or coffee, I don't feel afraid that a billionth of a grain of anything would poison me,—no, not even if it were snake venom." The answer given in explanation of the claim for increased potency due to increased trituration or dilution, is the false analogy, to any mind with even a blink of pathological and chemical training, utterly indefensible, of the better effect of manure upon soil, the more finely divided it is and the more minutely its portions are brought into contact with the microscopic rootlets, as if a solid when once in a state of solution, could be more finely divided by further dilution. The farmer to whom this analogy was presented would at once think that he saw the point, side with the homœopathic argument, and consider himself as good a man as his doctor, and so he would be if his doctor advanced such an argument. The text-book from which the above amazing explanation (*sic*) is taken is a limbo and chaos of incontinent attack upon men of such eminence as Virchow and Wunderlich, instead of a continuous and logical setting forth of homœopathic tenets. Of inflammation the author says: "Hence in homœopathy, there is neither a specific fever nor a specific inflammation, since all substances, proved on the human body, are capable of producing both fever and inflammation, though each one is different from the other according to the kind of irritation present. . . . To present a picture of inflammation in general, even for a single organ, belongs, hence, to the realms of impossibilities, though of this physiological medicine has no idea." It seems a waste of ink to reproduce such pathology as that. The laity cannot be made to see the fallacies of homœopathic practice, since they are fallacies due to ignorance, and to prove them one would need first to instruct his layman in physiology, chemistry, anatomy, and all the subjects of a liberal medical education. How could one set to work to show up the ignorance of the Toronto practitioner, who, to cure ring-worm of the scalp, prescribed some of his glo, bules and quite neglected local measures? And while the public continue to look on disease as many homœopathic practitioners and writers do, as an occult entity, rather than as a condition of the tissues and fluids, a something to be exorcised and banished by the use of remedies, often most disgusting, the action of which is not sought to be understood but is looked on rather with superstitious awe, how can we expect them to side with scientific rather than with occult medicine?

The text-book on homœopathy, to which we refer, says for instance that arnica if sufficiently attenuated will always cause tearing toothache in the left upper molars. That malaria, if accompanied by cold feet and legs, should always be treated by arsenic, but if not, by ipecac; since "in the proving of ipecac there is no complaint of cold feet or soles, whether sitting up or in bed." That "nux vomica and many other drugs cannot be given during the night, because they aggravate just those very phenomena of disease which they should relieve, and which when given during the day they do relieve and cure." That "humid asthma," and other lung diseases, are cured completely by the adminstration of dried lung of the fox in trituration of one grain of lung in 100 grains of sugar of milk, given in one grain doses every hour, the *rationale* being that the *pulmonic acid* (!) of the human lung being deficient, as evidenced by the disease existing, it can be best replaced by giving the above dose of the lung of an animal fabled to always have strong lungs. How show the mediæval ignorance and folly of such therapeutics to the average lay mind, when the laity persist in ideas which made it possible recently, for instance, for a mother in the country, near Toronto, with all its medical schools, to empty the bottle of expectorant mixture prepared for her son by the doctor, and substitute a decoction of sheep-dung, the boy being induced thus in ignorance to take the disgusting mixture, which he would otherwise have refused, and the cough hitherto intractable to "doctors stuff" yielding promptly to the mother's treatment, as the mother fondly and firmly believed! Probably the majority of homœopathic practitioners would repudiate now such therapeutics, and claim a more rational system. But if they practice scientific medicine, as in proportion to their success in serious cases they must, why, if honest, do they persist in arrogating to themselves the trade mark and title of homœopathy, unless it be to injure so far as they can the honest man who practices under his true colors, and to deceive the public into thinking that they have some new and better way of evading death, while the "allopath," that title of offence to the class purposely so dubbed by the rival school, still gropes in the darkness of ages past and gone?

THE ONTARIO MEDICAL COUNCIL.

That there is a widespread dissatisfaction among certain members of the profession, regarding the more recent acts of the Council cannot be ignored, though such feeling is much to be deplored. It must be admitted that our Council has done good work for the medical fraternity of Ontario. If we consider the protection that is afforded to regular and educated physicians, the steady elevation of the standard of requirements in medical knowledge, necessary before a candidate receives the *imprimatur* of the Council, so that our licentiates take and hold a respectable, nay, even honorable position, as regards their training, in any part of the world, and as compared with licentiates or graduates from any dical learning anywhere, and the certainly not extravagant or expensive manner in which this has been accomplished, surely it must be granted that the Council has done much good work.

Mistakes have no doubt been made; no body of men is infallible, but we cannot but think that, looking at the status of the profession in Ontario to-day, and comparing it with what it was at the time of inception of the Council, the work of that body has been, on the whole, such as must commend itself to every reasonable member of the profession. There seems to be a feeling of annoyance among some that they shall annually pay the sum of $2 towards the maintenance of the Council, which has become so obnoxious to them, and for the defraying of such necessary expenses for the conducting of examinations, registrar's salary, etc. Surely the amount is not too great for a man to pay yearly, for the support of body upon the integrity and business capacity of which, the very existence of his profession depends. If the members of the Council, individually or collectively have been either incapable, or guilty of dereliction of duty, then let the fiery cross be sent round, and let them, individually or collectively, be returned to their homes and other good men and true sent to fill their places, but do not let us in the present age complain that the impost is too much. How much does it cost a man per annum to belong the the Masonic order? Just about three times as much as to belong to the medical brotherhood by which he earns his living, and which *must*—if we do not wish to be overrun by quacks and charlatans, and if we wish our rising generation of medical men to be properly educated, and take their place in the ranks of the educated men of the world—which *must* be supported. No medical man will attempt to compare the importance to the medical profession of one or other of these institutions being maintained, and yet how many doctors—they are nearly all enthusiastic Masons, and all the better for it—pay without a murmur the amount considered necessary for the proper running of the honorable and respected Masonic machine, from the Grand Lodge down.

The Masonic body has been instanced, but the annual dues of many other secret organizations might be given to show that $2 per year is a sum, small indeed to pay for the maintenance of the honor and dignity of the grand and noble profession. The druggists pay $4 for their protection, which it must be admitted is not nearly so complete or certain in its working as ours. The lawyers pay about $18, and we do not hear any revolutionary murmur in the camp. They either pay or quit the game.

The majority of the aggrieved ones, however, and it may be said to the honor of that majority, resent, not the amount to be paid, but the threat by which the "dun" is accompanied; viz., that the names of all who do not pay shall be expunged from the register, rendering them legally unqualified to practice in Ontario, though they received their degrees and licences to practice for life many years ago. They regard the punishment as altogether out of keeping with the delinquency—that of failing to pay a trifling sum annually.

They enquire—Is not a power like this, given, in equity, if not in law *ultra vires?* Could the collection of the dues not have been secured in a fairer and less irritating manner?

The answer to the above, appears to us, who have taken some pains to get at the true inwardness of the doings of the Council as regards its financial operations, more especially as to the collection of dues, seems plain. When the annual due was $1, many men, we fully believe from forgetfulness and the habit of procrastination, did not pay. It was not that they wished to evade the law, or get out of paying their just dues; they would have been indignant, and rightly so, if any one had seriously imputed to them the desire to sneak out of paying what they owed to the profession, $1 per year, and yet *they did not pay.* This same habit of procrastination in the payment of small debts is not singular to those owed to the Council; would it were so.

So, many of the registered members *did not pay.* How could they be made to pay? By ordinary suit in the Division Court of the district where the delinquent lived. This proceeding was found to cost nearly as much as it came to, so that it was a sadly losing game for the Council. (See President Williams' address, CANADA LANCET, July, '92.

So far as irritation and annoyance is concerned, it cannot surely annoy a man who intends to pay his dues, to have certain penalties attached to his non-payment of them. It is not fair that some should pay, and some go scot free. Yet this was exactly what was happening under the old *régimé*, in spite of the powers vested in the Council, for it did not pay to collect by an ordinary suit at law the dues owing the Council, and necessary for its proper maintenance. If any due is necessary, and if $2 in a year is not too much, both of which propositions seem clear, what difference can it make to an honest man who intends to pay, what penalty is attached to his non-payment, even were that penalty—death by hanging!

DRUNKENNESS AS A DISEASE.

The constancy with which the various so-called cures for inebriety are foisted upon the public and the frequent disappointment of those who pin their faith to the utility of drugs as in inherited or acquired disturbance of the higher nervous system, indicates how much yet remains to be done in the way of educating public opinion up to the proper comprehension of the complicated process, involved in the "cure" of a condition arising from such different and even conflicting causes. The *Medical Press and Circular*, speaking on the subject, remarks, "The treatment of chronic inebriety by restraint, is just now upon its trial, but although it yields a certain proportion of successes, it has not yet falsified the adage that *qui a bu, boira.*"

In America, the so-called "Gold Cure," is attracting a great amount of attention, and certainly seems to do good in a large per cent. of cases treated, though controversy exists as to what extent it may be due to "moral effect." Keely, the originator of the treatment, claims that 95% of his patients are cured of all taste or desire for alcoholic stimulants, but admits, that if the "graduate" deliberately sets about cultivating the taste for it, he may become as badly off as before. But speaking of the treatment by restraint, or sequestration, we find it is only useful in cases where the habit has been acquired by self indulgence, with no element of heredity in the case.

This is, however, not condemnatory of the system of self-sequestration, which is all that the law has seen fit to authorize. The most regretable cases, and, at the same time, the most hopeful ones, are those persons who have fallen victims to the habit, owing to a want of prudence in the use of alcoholic stimulants. The average healthy man only resorts to liquor for social reasons, or to whip up his system when jaded and fatigued from overwork or worry, the temporary relief, so obtained, however, draws upon a store of latent nerve force, which, from constant depletion, weakens the will power, necessarily dependent, as a manifestation of nervous change or action, upon a thoroughly healthy condition of the nerve store, or latent accumulation of psycic energy; until at last the fatal day arrives, when the unfortunate victim finds himself the irresponsible slave of a new growth of nerve-cells, whose ancestors in the economy, so to speak, have handed down to them an inability to perform their functions properly without alcohol, just as the want of oxygen in the circulation causes an "air craving," in the cells of the respiratory centre. In such cases there existed no lack of self-control or will power at first, and until the habit became a disease or rather an intrinsic nerve condition, this will power could have been exerted with good effect. It is in such cases that restraint, for a longer or shorter period, as the case may call for, is of great utility in bringing about a cure. But, on the other hand, in the poor unfortunate born into the world, a child of his ancestor's middle life, and formed habits of indulgence in sack, Madeira, or other stimulants so fashionable in other days, morally weak from the beginning, predestined, we might almost say, to ruin, if brought into contact with drink, we find that sequestration lamentably fails, and that the only hope lies in his never touching the drug, and being taught when a child wherein his danger lies. A great many such cases are unfortunately seen among the mentally gifted; how many do we all know of, who seemed to have success, power, riches, happiness at their command, who suddenly faltered in the race of life, struggled hopelessly for a time, and sank back into a drunkard's grave. Others, again, become affected at certain periods with the "drink crave," having little or no desire for it in the interval. Such cases resemble the disease to which the French psychologists have given the expressive name of *folie circulaire*, which is characterized by periodical outbreaks of mania, the patient being lucid in the interval, but requiring restraint during the attack. In many cases of this rhythmic "drink crave," the condition may be looked upon as an alternative manifestation, to epilepsy, insanity, or other nervous diseases, which upon investigation may be found to mar the patient's family history, so that we clearly see the hopelessness of drug treatment in such a condition of affairs, there being an inherited lack of nutrition of the higher nerve centres, the unfortunate victim being really a moral idiot. In conclusion, thinking men must agree, that great caution is to be exercised in the acceptance of any one cure for all classes of inebriates, remembering, that although many who have acquired the habit may be treated with success, those belonging to the other categories are unfortunately doomed to outbreaks, so long as the stimulant is manufactured, and may be obtained by them.

CANADIAN MEDICAL ASSOCIATION.

The twenty-fifth annual meeting of the Canadian Medical Association will be held in Ottawa on Wednesday, Thursday and Friday, 21st, 22nd and 23rd September, under the Presidency of Dr. John L. Bray, of Chatham, Ont. Arrangements have been made with the G. T. and C. P. Railways whereby members may obtain return tickets for one fare and a third. Members and delegates must procure certificates from the station agent at place of departure.

Judging from the number of members and delegates who have signified their intention of being present, the meeting to be held in Ottawa will in all probablity be a very successful one.

Members desirious of contributing papers will kindly communicate with the General Secretary (Dr. Brickett, 123 Stanley Street, Montreal) at as early a date as possible. Appended is a partial list of papers:

Address in Medicine: "The Treatment of Pulmonary Tuberculosis"—Dr. J. E. Graham, Toronto. To be discussed by Dr. Prevost, Ottawa.

Address in Surgery: "Observations on the Progress of Surgery in our own Day"—Dr. Donald MacLean, Detroit, Mich. To be discussed by Dr. V. H. Moore, Brockville.

Address in Obstetrics: To be discussed by Dr. Harrison, Selkirk.

Gastro-Enterostomy—Dr. L McFarlane, Toronto.

Chronic Bright's—Dr. McPhedran, Toronto.

Intussusception and its Treatment by Operation—Dr. F. J. Shepherd, Montreal.

Treatment of Abortion—Dr. K. N. Fenwick, Kingston.

The Management of Goitre—Dr. Dupuis, Kingston.

Uric Acid in Children—Dr. A. D. Blackader, Montreal.

Diseases of the Naso-Pharynx associated with Ocular Affections—Dr. Buller, Montreal.

Prostatectomy—Dr. Geo. E. Armstrong, Mon-

Appendicitis— Dr. H. P, Wright, Ottawa.

Biological Analysis of Some Canadian Water Supplies—Dr. Wyatt Johnston.

Unrepaired Laceration of the Cervix the most Common Cause of Epithelioma of the Cervix Uteri—Dr. Lapthorn Smith, Montreal.

Case Illustrative of the Influence of Diseases of the Female Generative Organs upon the Visual Apparatus—Dr. Ryerson, Toronto.

(1) Two Early Deaths from Gonorrhœa; (2) Enterectomy for the Cure of Fæcal Fistula—Dr. H. H. Chown, Winnipeg.

An Epidemic of Morbilli Hæmorrhagici—Dr. C. J. Edgar, Sherbrooke.

Hemorrhage in the New-born—Dr. F. A. L. Lockhart, Montreal.

(1) Administration of Chloroform and the Dangers incident thereto; (2) (*a*) Phlebitis of the Left Femoral Vein caused by an Embolism coming on three weeks after Hysterectomy. (*b*) Aneuism of the Abdominal Aorta—Dr. J. D. Balfour, London.

....—Dr. A. E. Praegor, Nanaimo.

(1) Notes on Eye Lesions consequent on Nasal Affections; (2) Traumatism of the Labyrinth—Dr. Geo. Baptie, Ottawa.

Papers have also been promised by Sir James Grant (Ottawa), Dr. Mullin (Hamilton), Dr. Geo. McDonald (Calgary), and Dr. Johnston-Alloway (Montreal).

A special general meeting of the Association of Medical Officers of the Mititia of Canada will be held during the session of the C.M.A.

GOLDEN RULES OF SURGICAL PRACTICE.—*Continued—(Times and Reg.):*

GENITAL-PENIS.—Never sanction a lengthened or adherent prepuce—circumcise.

Never despise any skin in stitching up scrotal wounds—the worst flap will heal.

[Warm a wound of the scrotum before uniting it with sutures.]

Always slit the urethra downwards in amputation of the penis, and stitch the angles outward.

Always keep a catheter in position continuously in injuries to the penis, if the urethra is divided.

Do not tap a hydrocele without examining the position of the testicle with the light.

Do not strap a testicle without shaving the scrotum.

Do not give a decided prognosis of a solid slow-growing tumor of the testicle in which hydrocele co-exists, before you have tapped the hydrocele and examined the gland carefully. It may be non-malignant. If any doubt exists after this advise a free incision.

GONORRHŒA.—Never forget to warn your

patient about his eyes in treating a "*first*" attack of gonorrhœa.

In giving a "*first*" case of gonorrhœa copaiba, always warn your patient of the possibility of the eruption.

Never neglect in treating gonorrhœal rheumatism to cure the discharge as speedily as possible.

In examining the cause of a knee synovitis of a young man never omit to examine the penis for gonorrhœa or gleet.

In inquiring into a history of syphilis do not hastily judge of the statement of the patient that a rash was syphilitic; inquire about copaiba.

Never use an injection if there is much pain, scalding, or inflammation, unless it be cocaine.

Never forget many gleets are due to slight contractions of the canal, and may be cured by a steel bougie.

HAND AND FOOT.—Do not forget that it is wiser, in cases of supposed needle in hand or foot, when the patient is not suffering much inconvenience, not to cut down unless the end of the needle is felt.

Never estimate the amount of flat foot when your patient is *sitting*, because the weight is taken off the arch.

Do not forget that the foot may be amputated for supposed strumous disease of the tarsus when, on examination, the affection might have been proved to be limited to one of the tarsal bones, and the patient might have been cured by a less extensive mutilation.

Do not despise or neglect corns, bunions, or ulcers of the leg in the aged, or diabetic. They often start gangrene.

(*To be continued.*)

GONORRHEAL CEREBRO-SPINAL MENINGITIS.—Dr. Stiénou (*Jour de Méd de Bruxelles,—Med. Rec.*), relates a case of cerebro-spinal meningitis in a young man, which, according to the author's views, was due to the location in the cerebro-spinal meninges of gonococci from a urethritis which was found present, just as the germs of epidemic cerebro-spinal meningitis, typhoid fever, erysipelas, acute rheumatism, etc., are capable of vegetating in this region and developing their effects The occasional production of arthritis, peri- and endocarditis, periostitis and neuritis, from the presence of this microörganism, plead in favor of the author's hypothesis and permit the conclusion that while meningeal manifestations from gonorrheal infection are very rare, they are by no means impossible.

In connection with this subject the following will be of interest: In the Johns Hopkins Hospital Bulletin for May, Dr. W. T. Howard, Jr., reports the case of an infant operated upon for imperforate anus in which the rectal wound suppurated. The child died in the second month, of purulent ependymatis, meningitis, and encephalitis, and a bacteriological examination of the pus from the inflammatory area showed the presence of a micrococcus and of the *Bacillus coli communis*. The child had atresia of the pulmonary orifice of the heart and patency of the foramen ovale and of the ductus arteriosus, and the reporter thought the feebleness of the circulation had favored the mixed infection by means of the suppurating rectal wound. He calls attention to Netter's bacteriological examination of twenty-five cases of simple meningitis, in which the *Diplococcus pneumoniæ* was found present in fifteen; the *Streptococcus pyogenes* in four; an intra-cellular diplococcus in two; a short, active bacillus, the bacillus of Friedländer, and a slender, small bacillus, respectively, in the three remaining cases. Monti also found the *Diplococcus pneumoniæ* in the pus of four cases of meningitis; and the frequency of the presence of pneumococcus is explained by the fact that meningitis is so often secondary to pneumonia and otitis media. Besides these micro-organisms, Dr. H. M. Biggs, reported, at a recent meeting of the Section in General Medicine of the New York Academy of Medicine, a case of meningitis in which he had found the bacillus of anthrax, although there had been no local focus of that disease on the body. It is interesting to note the varieties of micro-organisms that may cause meningitis.

NEW TREATMENT OF ASTHMA.—Dr. B. O. Kinnear (*N.Y. Med. Jour.*), holds that asthma is a nervous disease, the circular bronchial muscles being chiefly affected. The pneumogastric nerves and their congestive centres are mainly responsible for the asthmatic paroxysms. By excluding the blood from these centres, their function is rendered normal; co sequently the muscles about the bronchi expand, a the swelling of the mucous membrane subsides. T result is obtained by ice applied over the spine in such a way, that, the circulation being naturally distributed over the body, the congestion of the centres is at once lessened in the acute attack. He maintains that ice over the spine dilates the arteries throughout the body, distributing the blood to organs and tissues where there has been an insufficient supply. The ice is applied in bags extending from the 4th cervical to the 3rd lumbar vertebra daily, in time varying from three-quarters of an hour to four hours. Six cases are reported. *Case I*; is that of a woman 60 years of age, who was a sufferer from asthma for 16 years. Ice was applied in a full length bag, and used four hours a day, an hour at a time. The patient was practically well in six weeks. *Case II*, that of a boy with hereditary asthma. Application of ice bag at once relieved the paroxysm. The results in the other cases show, that the asthmatic attacks may be subdued or controlled by the application of ice to the spine, and that if the patient is not too old, or the disease of too long duration, cures may result.

DELEGATES TO THE DOMINION MEDICAL ASSOCIATION.—The following are delegates from the Ontario Medical Association to the Dominion Medical Meeting, in Ottawa, Sept. 20th: Drs. R. W. Hillary, President; Drs. Chas. O'Reilly, J. E. Graham and D. J. Gibb Wishart.

WOMEN'S MEDICAL COLLEGE, TORONTO.—The following appointments have been made in the staff of the Women's Medical College here:—Dr. G. Gordon, Lecturer in Sanitary Sciences; Dr. F. Cane, Mental Diseases; Dr. S. Boyle, Histology; Dr. J. Gray, Assistant in Anatomy.

TO LANCE A SWOLLEN TONSIL.—Christopher Heath says (*Internat. Clin.*):—Do not try to get round the anterior pillar of the fauces, but go straight back through the soft palate, and no effort on your part can possibly bring the knife into any relation at all with the carotid vessels. Open the upper part of the tonsil.

TURPENTINE IN TYPHOID FEVER.—Dr. H. C. Wood (*Therap. Gaz.*), believes that turpentine is of great service in healing intestinal ulcers, which, after the fever, so often cause diarrhœa and intestinal indigestion. Again, the remedy is of great service when we have tympanites with dryness of the tongue, developing in the end of the second week of the disease. Wood, believing that turpentine acts locally, that in all cases of typhoid fever ulceration exists, that properly administered the drug is incapable of doing harm, is in the habit of giving towards the close of the second week of typhoid fever turpentine, without looking for special indications, and, as the result of an experience of considerably over a quarter of a century, he believes the practice to be a good one, and that the use of turpentine does distinctly tend to lessen the severity of the local lesions in enteric fever. In closing this brief paper, attention is called to the powers of glycerin in disguising the taste of turpentine; the following formula is given:

℞—Ol. terebinthinæ . . . f ʒ viii.
Glycerinæ . . . . . f ʒ i.
Mucil. acaciæ . . . . f ʒ iss.
Aquæ menthæ piperitæ, q.s. ad f ℥ viii.—M.

Sig.—Tablespoonful every four hours during the day. Shake well.

MAGNESIUM SULPHATE IN CATARRHAL INFLAMMATION OF THE DIGESTIVE TRACT.—Dr. S. Bradbury (*N. Y. Med. Rec.*), has had considerable experience with this remedy in inflammation of the mucous, areolor and muscular coats of the bowel, and thinks very highly of its efficacy in such conditions. The dose administered must be a large one. He says: "I have found, in a large experience in using this salt, that small doses do more harm than good. The smallest dose for an infant should not be less than a heaping teaspoonful, and a great spoonful may be given without harm. The truth is, the greater the dose the less it gripes. In my case above, I took half a pint of clear salt dissolved in water without the slightest griping when operating. This medicine does good in the case mentioned, evidently by producing a copious discharge from the lining of the digestive tract, without having any but the slightest effect upon the muscular coat. It is totally unlike ordinary cathartics, it simply causes the excretion of fluids from the digestive mucous membranes, hence the safety in giving large doses, as the intestinal muscles are not acted upon by them."

Acrolozone, "Harvey's."— Manufactured in this city, is a somewhat similar, but much more staple preparation than hydrogen peroxide. It is a powerful antiseptic and can be used with greater freedom than the peroxide, owing to itsbeing unirritating. It is of particular value as a wet dressing for ulcerated surfaces, serviceable in cases of chronic suppuration, and simply invaluable in diphtheria. It is also being administered in teaspoonful doses, in certain cases of dyspepsia.

Correction.—In our last issue, in the proceedings of the Ontario Medical Council, at p. 375, we stated that Dr. Moore moved a resolution relative to the Finance Committee. It should have read "Dr. Millar moves," etc.

Books and Pamphlets.

A Text-book of the Practice of Medicine, for the use of Students and Practitioners. By R. C. M. Payne, M.D., Professor of General Medicine and Diseases of the Chest, in the New York Polyclinic, etc. Wm. Wood & Co. N.Y., 1892.

This new volume, which is by no means one of the compend or quiz sort of text-book, is a very compendious treatise upon the large and important subject undertaken. One may make its scope plainer to Canadian readers by saying that it seems to occupy the same place in medicine as does Walsham in surgery, and while it seems incorrect to call it a text-book for the use of practitioners, it would appear very well suited to the purpose of the student. Even on the latter, however, it is probable that the effect of the exclusive use of such brief treatises in student days is not good, as tending not to develop the habit of reading in more extensive works; a habit which will not be well formed in the busier journal-reading days of practice, if the foundation be not laid before those days begin. The classification of diseases is modern and refreshing, rheumatism, articular and muscular, being classed where they belong, among the acute infectious disorders. Diseases of the heart and respiratory system alone occupy rather more than one-third of the book, a circumstance due, perhaps, to the natural insistence of a specialist upon his own subject. The paper is excellent, and the typography very good, but the lack of proper paragraphing, and arrangement of the subject on the page so that the untrained eye and mind of the student may be aided in reducing order from chaos, is very apparent. It strikes one as unscholarly to see Latin and English incongruously mixed, as thus: "Fl. ext. ergot," where "ext. ergotæ fl." is meant; or thus, "I have usually given it in ten-grain doses ter die for about six weeks"; or thus, in a prescription, "Pulv. potass. iodidi, Fowler's solution, aquæ q.s. ad." etc.

A Text-book of Nursing; for the use of Training Schools, Families, and Private Students; compiled by Sarah S. Weeks-Shaw. Second edition, revised and enlarged. Illustrated, pp. 391. New York: D. Appleton & Co. Toronto: Carveth & Co., 1892.

This new edition is up to date, as regards the new procedures in surgery—those of the last half dozen years—and with which every trained and competent nurse should be familiar. A chapter on Gynæcology has been inserted, and it will be a welcome addition to the book. The book presupposes a certain knowledge of anatomy and physiology, it having been found impossible to incorporate these. The work is well written, and well printed, the illustrations are good, and, taken as a whole, the work is perhaps the best we have seen on the subject.

Essentials of Diagnosis; Arranged in the Form of Questions and Answers, prepared especially for Students of Medicine. By Solomon Solis-Cohen, M.D., and Augustus A. Eshner, M.D., with fifty-five illustrations, some colored, and a frontispiece. Philadelphia; W. B. Saunders, Toronto: Carveth & Co.

This is one of Saunders' well known series. The price is $1.50; pp. 382. The general scope of such work is well known. While they must be harmful to the student if read to the exclusion of standard works, they certainly fill a place in the student's room,—that of the old-fashioned note book. The present volume is well up with the most modern ideas regarding diagnosis. The differential diagnosis of diseases will be of much use the student.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE,
CRITICISM AND NEWS.

Original Communications.

THE PREVENTION AND CORRECTION OF DEFORMITY IN THE TREATMENT OF HIP DISEASE.

BY D. E. MCKENZIE, B.A., M.D.,

Lecturer on Surgical Anatomy and Orthopædic Surgery in the Woman's Medical College, and Surgeon to the Victoria Hospital for Sick Children, Toronto.

In the management of hip disease, whatever may be the explanation, there is a tendency to flexion and adduction of the limb. Whether the case be treated by operative measures, by mechanical appliances, or by the expectant plan, this tendency to deformity is strongly marked, and persists throughout the period of convalescence. There may be seen upon the streets every day, persons who have suffered from this affection, who have recovered from the disease, but who are conspicuous because of unnecessary shortening of one leg, and deformity. (In Figs. 1 and 2, strongly marked cases of the deformity are shown).

Early in the history of the disease, flexion of the femur upon the body is very generally observed, and if means for its rectification and prevention be not employed, it is likely to persist to the end. It is not uncommon to find flexion increasing during the progress of the disease, until the axis of the affected femur is at right-angles to that of the body. In their early history, some cases have the limb abducted from the middle line, but even these, as time passes, so change, that the limb on the affected side becomes adducted. Even when a period of quiescence sets in, and the case is proceeding satisfactorily to recovery, and also after successful operation, the tendency toward these two positions of deformity, viz., flexion and adduction, persists.

By a reference to these diagrams, it will be seen how adduction of the limb causes apparent or practical shortening. The line *ab*, Fig. 3, joining the acetabula, is normally horizontal, and the lines *ad* and *bc*, representing the lower extremities, are equal in length and symmetrically placed, so that the angles at *a* and *b* are equal. If *b* represent the affected joint, then, through adduction, *bc* takes the place *bc'* and the angle at *b* is made smaller. Now as the patient cannot walk with the limb in this relative position, and the limb is prevented from movement at the joint *b*, the pelvis on that side is drawn upward and the angle at *a* is increased, as in Fig. 4. The limbs are thus brought into symmetry of direction at the expense of apparent shortening. This is well illustrated in Fig. 1.

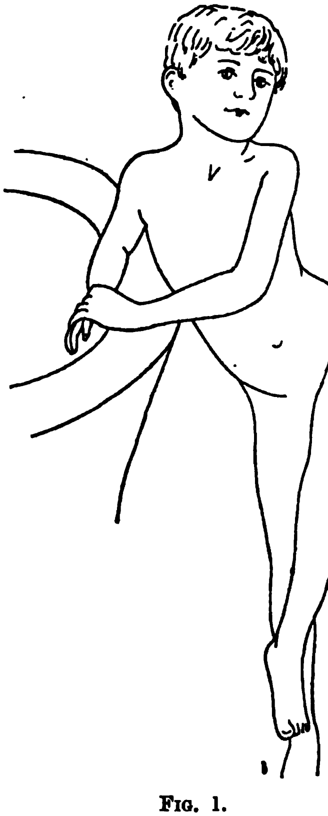

FIG. 1.

By a reference to Fig. 2, it is seen how flexion causes lordosis. The affected limb is strongly flexed upon the pelvis, and an attempt made to extend the leg, so as to bring it into line with the body, at once produces compensatory flexion in the lumbar vertebræ.

Consequent upon these two deformities, it is not uncommon to have several inches of apparent shortening in cases where there is no real shorten-

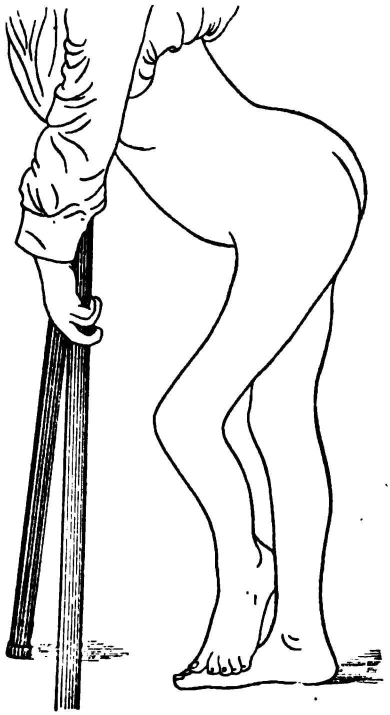

Fig. 2.

ing of the limb. In the case, Fig. 1, the affected limb was really two inches shorter than its fellow, while the practical shortening was six inches, because of tilting of the pelvis. In the same cut it is well shown how another deformity, namely, curvature of the spine, is dependent upon the upward tilting of the pelvis on the affected side. As, when the pelvis is tilted forwards, compensation is made by the lumbar flexion backward, so when the pelvis is tilted laterally, there arises a compensatory lateral curvature. Thus it will be seen that flexion of the limb upon the body and its adduction toward the mid-plane are not only unsightly deformities themselves, but they are important causative factors in the production of practical shortening and curvature of the spine.

Treatment.—A case efficiently treated from the commencement of the disease, by rest in bed, by the American traction splint, by the Thomas' posterior hip splint, or other means, may easily be kept from acquiring these deformities. When, however, they are already present, the mechanical problem implied in their correction is presented for solution. It is my practice when the deformity is strongly marked, to put the patient in bed, secure the sound limb and body in the horizontal position by the application of a long splint from the axilla, extending about ten or twelve inches beyond the foot, and at this point secured to the bed. Extension is now applied to the affected limb, pulling very nearly in the line of the axis of the limb, as determined by the deformity. Fig. 7 (Howard Marsh, "Diseases of the Joints," p. 398). This treatment is continued until the adduction and flexion of the limb are lessened or entirely corrected. (Fig. 8 is Fig. 7 after treatment).

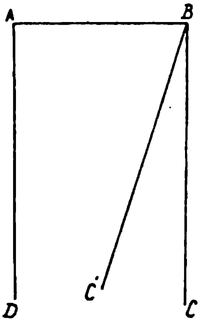

Fig. 3.

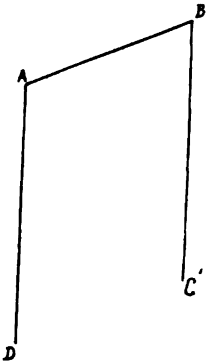

Fig. 4.

When the deformity is thus corrected, I follow by the adjustment of a splint, so that the patient

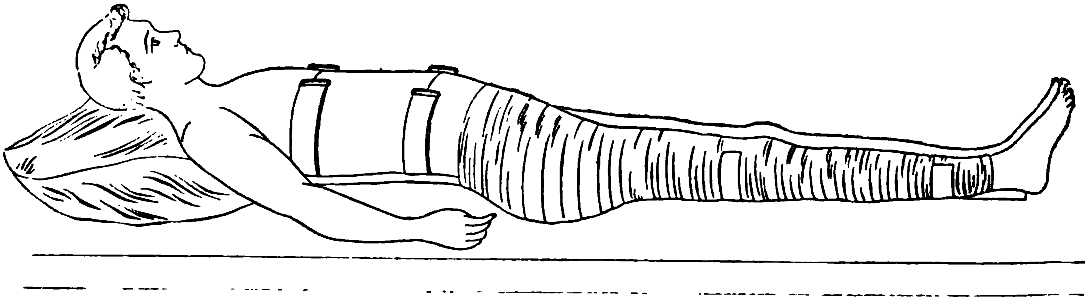

Fig. 6.

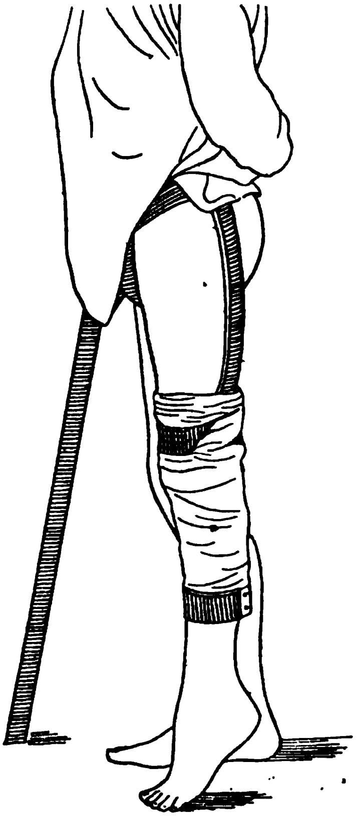

Fig. 5.

can walk about and have the advantages of sunlight, fresh air and exercise. The splint shown in Fig. 8 (same patient as in Fig. 1) represents a form of traction splint which has been largely used in the United States. It consists of a rigid horseshoe-shaped band about the pelvis, and a steel stern attached immovably to this band, which extends below the foot two or three inches. The straps attached to the foot-piece in which this stern terminates, are buckled to straps secured to the leg by adhesive plaster and bandages. Thus extension is made upon the limb, while counter-extension is made by padded straps passing under the perineum and attached to the pelvic band. It is thus seen that the splint may be made powerful, to prevent and correct adduction, as the knee is not permitted to bear the whole weight of the limb and its splint is exerted to prevent or correct flexion also.

The Thomas' hip-splint (Figs. 5 and 6) secures immobilization and may be used to correct flexion. If the splint be applied so as to fit the limb in its flexed position, after a few days or weeks of immobilization thus secured to the joint, the stern of the splint may be made straighter by several degrees, and the muscles having become relaxed, owing to the rest which the joint has enjoyed, the limb easily permits of extension to the same extent.

There are some cases in which contracture of the flexor and adductor muscles has occurred, which do not readily yield to any of the methods of treatment described. In such, tenotomy or myotomy may be performed, the limb placed in a correct position, and the American or the Thomas' hip-splint be employed. Such was the treatment adopted in case shown in Figs. 2 and 5.

When anchylosis is found at the joint, osteotomy at a selected point in the upper extremity of the femur is better practice than the breaking up

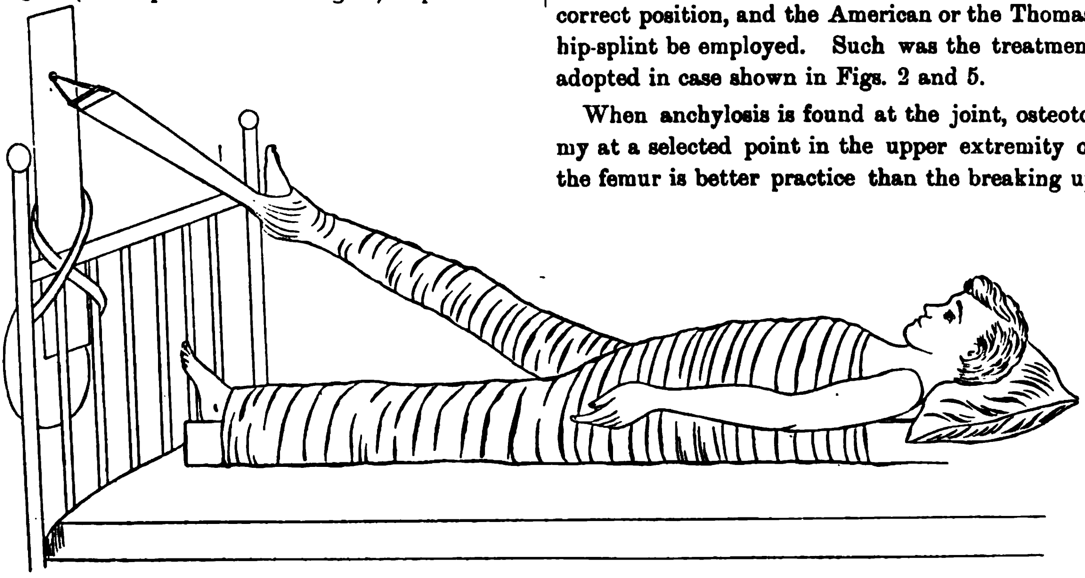

Fig. 7.

of the fibrous or osseous attachments by manipulation. Whatever means may be employed for the correction of the deformity, it is necessary that a retentive appliance be used, in order to keep the limb in position until recovery follows. The same tendency to adduction and flexion is manifested after operative procedures for the removal of diseased tissues, and the same necessity arises for the prolonged employment of mechanical means.

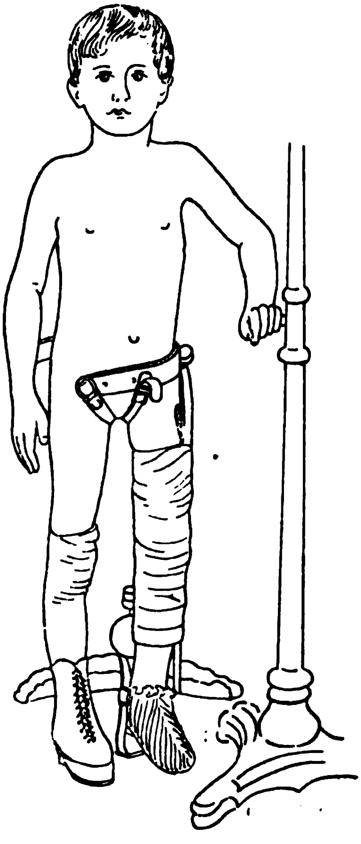

FIG. 8.

By intelligently carrying out the principles advocated, every case of hip-joint disease may be brought to a termination without any deformity, except such as results from the arrest of growth, or arises from the destruction of tissue by the ravages of the disease.

So marked and uniform is the tendency to adduction, that it is not necessary to correct abduction when it is found to exist. A case that has the limb abducted early in its history, will be one of adduction at a later stage. In order to insure success, the mechanical appliances require constant attention, and it is necessary that there be an intelligent grasp of the mechanical problems presented. Splints are frequently supplied by the makers of surgical appliances, that are not only useless, but harmful. In order to get satisfactory results, the appliances must be of sufficient strength and resistance to keep the affected limb entirely at rest, after reduction of the deformity has been effected.

IMMEDIATE CLOSURE OF THE WOUND AFTER SUPRA-PUBIC CYSTOTOMY.*

BY A. GROVES, M.D., FERGUS, ONTARIO.

The object usually aimed at by the operative surgeon in regard to the wound he makes, is that it shall be healed up in the shortest possible time, and with the least disturbance to the general economy of the system. Immediate union is the ideal result we are all striving for, and in wounds of the bladder this is especially desirable, on account of the constant escape of urine through an open wound. I believe immediate closure of the wound after supra-pubic cystotomy is not only feasible, but that it should be done in almost every case. In cases where a supra-pubic opening is required, the bladder is generally in an unhealthy condition, containing, it may be, ropy mucus, pus, cast-off epithelium, decomposing blood clots, and fœtid urine. Such a state of affairs will, unless corrected, frustrate the attempt at obtaining immediate union in the wound, and renders necessary as a preliminary measure, the most careful antiseptic cleansing of the bladder. Copious and frequently-repeated washing of the viscus with antiseptic solutions should be made for some days and for this purpose Thiersch's solution of salycilic and boracic acids will usually be found quite efficacious, the patient being kept entirely at rest. When the urine is alkaline, benzoic acid administered by the mouth will be found of value.

At the time of operating, the bladder receives a thorough washing out, so as to remove all septic matter, and destroy the septic activity of the diseased mucous membrane, and is left moderately filled with an antiseptic solution. As soon as the incision has been made so as to expose the bladder, and when ligatures have been passed through the bladder walls for the purpose of steadying it, the fluid had better be drawn off by a catheter before the bladder is incised, for even a supposed antiseptic solution poured from a diseased bladder over a fresh wound is by no means to be regarded without apprehension. The object of the operation having been accomplished, whether the removal of a stone, the excision of a tumor, the simple exploration of the bladder, or whatever else was found necessary, the whole wound must be thoroughly flushed with a bichloride solution. The wound in the bladder is now to be brought together, and for this I prefer a continuous buttonhole catgut suture, the needle being entered about one-third of an inch from the margin of the wound and passed down to, but not through, the mucous coat, and entering the opposite lip between the mucous and muscular coats, it emerges a third of an inch from the edge. The intervals between the stitches should not be more than one-tenth or one-eighth of an inch, and in no case should the mucous membrane be penetrated by a stitch, for, in case this should occur, a passage is made for septic infection from the bladder, and the success of the operation, in so far at least as immediate closure is concerned, will be seriously compromised. The bladder having been closed, the wound is again thoroughly disinfected with a one-in-two-thousand bichloride solution, and the tissues between the bladder and skin brought together with catgut; lastly, the skin wound itself is brought into accurate apposition in its entire extent, by stitches placed not more than one-third of an inch apart. A gauze dressing, with a layer of absorbent cotton and a bandage completes the toilet of the wound. A soft catheter is retained in the bladder, and special care should be exercised that no urine accumulates, more especially during the first three or four days; but should it be impossible from any cause, to keep an instrument constantly in the bladder, the passing of a soft catheter every three or four hours will be quite sufficient to prevent the pressure of the urine from opening the wound. If, in any case, there should be a contracted bladder or persistent desire to pass water, the catheter should either be retained or passed at short intervals, and the time between each catheterization lengthened; but for the first two weeks not more than six hours should be allowed to elapse between two evacuations of the bladder, and the patient should be warned not to make any effort at urinating when the catheter is not in use. Experience may, and I believe will, prove that the time when the catheter can be dispensed with is less than two weeks, but it is better to err on the side of safety.

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*Read before the Ont. Med. Association, June, 1892.

Although this method of treating the wound after supra-pubic cystotomy is materially different from that usually practiced, I feel satisfied its adoption will quite perceptibly increase the percentage of recoveries and will at the same time immensely lessen the suffering and discomfort of patients who would otherwise have a slowly cicatrizing wound from which pus and urine would escape more or less continuously for many days. Simply bringing the edges of the bladder wound together is only a half measure, and like all half measures, is generally a failure. The thin walls which have only recently adhered, lying at the bottom of an open wound, and bathed constantly on one side with urine and on the other with pus are almost sure to come apart, but with the support given by closure and adhesion of the overlying tissues the bladder remains from the beginning closed up, and with ordinary care I am persuaded no untoward event need be dreaded.

BACTERIOLOGICAL NOTES.

BY E. B. SHUTTLEWORTH.

Removal of Aniline Stains from the hands.—The stains used in microscopic work are sure to leave their mark on the hands of the operator, and those who use pyoktanin, in ordinary practice, seldom escape the evidence of their manipulations. A little alcohol, or hydrochloric acid, will generally remove the greater part of these dyes, but, to do it completely, some bleaching agent is required. Sodium hypochlorite, in the form of Labarraque's solution, or that of the calcium salt, are quite effective, but leave behind the very disagreeable odor of these compounds. Unna has lately recommended a method which is convenient and unobjectionable. The hands are first washed in a solution containing a little—say five per cent.—of common salt, and then in hydrogen peroxide solution, of about the same strength, being finally wiped with a cloth moistened with alcohol.

Transmission of Tubercle Bacillus from Mother to Fœtus.—The London *Lancet* attaches considerable importance fo the recent claim of Birch-Hirschfeld and Schmal, that they have clearly demonstrated the passage of the bacillus of tubercle from mother to child. The patient died of tuberculosis during the seventh month of pregnancy, and, immediately after death, the child was removed by Cæsarean section. It was then dead, but, shortly after the death of the mother, had been felt to move. Autopsy showed decided evidence of tubercles in the lungs of the mother, though not in those of the child; but the bacilli were found in the umbilical cord and the blood of the umbilical vein. Small pieces of the liver, spleen and kidneys were introduced into the abdominal cavity of two guinea pigs and a rabbit. One of the animals died in fourteen days, another was killed after six weeks, and the rabbit died in about three months. In all three cases tubercles were found and clear evidence of the bacilli was obtained. The conclusion arrived at is, that though no tubercular lesions were to be found in the organs of the fœtus, the latter were capable of infecting animals, and, in all probability, had the child survived, tuberculosis would have very soon developed.

Bacillus of Eclampsia.—Gerdes *(Deutsche Med. Wochensch.*, in *Brit. Med. Jour.)* announces the discovery of a short bacillus in the lungs, kidneys and liver of patients suffering from eclampsia. The bacilli were demonstrated by culture, and, by inoculation, produced in mice and rats strongly marked convulsions, followed by coma and death. These results were not produced in guinea-pigs, except intravenous injections were employed.

Bacteriology of Measles.—Several micro-organisms have been stated to be the cause of this disease, but subsequent investigations have disproved the announcements made. A late report from Berlin is to the effect that Canon and Pielicke have found in the blood, sputum and nasal discharges of affected persons, a bacillus which differs from any hitherto described. It was noticed during the entire course of the disease, and, in some cases disappeared before the rash had entirely faded.

Bacillus Diphtheriticus.—Dr. F. J. Tower, who has had a large experience with diphtheria, read before a recent meeting of the Milwaukee Medical Society *(Phila. Med. and Surg. Rep.)* a paper on the ætiology and bacteriology of the disease, in which he laid great stress on the value of the microscope as an aid to diagnosis. In every case of true diphtheria he had found the characteristic bacillus, but, in no instance, had he found such in tonsilitis. He carried with him a few cover glasses, and, between two, put a little of the tonsilar, faucial, or nasal exudate, or a particle of membrane; pressed the covers together, and then took them apart and allowed them to dry. After two or three minutes he wrapped them in paper, and, on returning home, stained in the usual way, with Grieber's or Lœffler's blue. In cases of doubt he made a boiled potato culture, taking no previous precaution as to sterilization. In five or six hours, or over night, at a temperature of about 38° C., the bacillus grows with great rapidity, exhibiting itself as a glassy film, of which a small portion may be stained and examined. The author does not agree with Osler's statement, that the poison is not given off in the breath of the patient. He had met with many cases of undoubted air infection, and had also been able to infect tubes of media with the breath of an affected patient, blown through a glass tube, bent many times, so that fluid particles could not reach the culture. Dr. Tower believes that there is only one diphtheritic organism, and that, as asserted by Roux and Yersin, the other sometimes observed is an attenuated form of the Klebs-Lœffler bacillus. This does not, however, explain what is claimed as a fact—that the true bacillus changes the alkaline reaction of the culture medium to acid, while the spurious does not.

Can there be True Diphtheria without the presence of Lœffler's Bacillus?—This question is answered in the negative by the observations of Baginsky *(Arch. f. Kinderheilk*, in *N. Y. Med. Jour.)*, which showed that in ninety-five cases of apparent diphtheria, the bacillus was only found in sixty-eight, all of which were serious, and twenty-seven fatal. Paralysis was common. In the remaining cases the illness was short, and only one child died. The conclusion is drawn that there were, in reality, two diseases, similar in symptoms, but recognizable by the microscope.

Bacteria and Carbonated Waters.—Dr. A. Montefusco has been making some investigations on the effect of carbonic acid, as existing in ærated waters, on pathogenic micro-organisms, and finds, so far, that they are unaffected by it, though saprophytic bacteria are, with few exceptions, destroyed.

Lactic Acid produced by the Cholera Bacillus.—In a paper recently read by M. Ferran, at a meeting of the French Academy of Sciences, he stated that the comma bacillus might be added to the list of those which under favorable conditions produce lactic acid. He enumerated a number of these micro-organisms, among others, *Bacillus coli communis*, which determine the lactic fermentation of milk, and stated that if a little lactose be added to an alkaline bouillon culture of the comma bacillus the production of lactic acid is very evident, but as soon as the quantity of this substance increases the bacillus is killed. He pointed out the fact that this acid has been found of use in infantile diarrhœa, which, it is asserted, is caused by Escherich's bacillus, *B. coli commune*, and thought the administration of the acid in cholera would likely prove equally efficacious. The form of lemonade was recommended, and it was suggested that morphine be also employed so that by its anexosmotic power the absorption of toxines might be retarded.

Reports of Societies.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

ANNUAL MEETING OF THE MEDICAL COUNCIL.

(*Continued from September number.*)

Dr. Bray—From the very full and lucid explanation Dr. Moore has given of this clause, I think we cannot do anything else but accept his amendment; and I would support it heartily. I think the wording of some parts of it has been one of the greatest drawbacks we have had to our curriculum; and I think the plainer we have it the better for the Council.

Dr. Harris—I fully agree with Dr. Bray, and I think the thanks of the Council are due to Dr. Moore for the pains he has taken.

Dr. Geikie—Having had a good deal of experience in these matters, I would substantiate what Dr. Moore has said.

Dr. Bergin—Before the motion of Dr. Moore is put I desire to offer a few observations to the Council. I listened with very great pleasure to Dr. Miller, when proposing a motion a little while since; and I should be gratified that every member of the Council entertained the same views as regards the permanancy of our curriculum that he seems to entertain. From the day I entered the Council until to-day, I do not think that our curriculum, as a whole, has been the same any two years in succession. As a matter of fact, if we pass this resolution, as I see quite clearly it is likely to be passed, we shall be the laughing-stock of the community. We sent forth an Announcement last year, in which we planted before the world the superior acquirements of this Council, in which we took credit to ourselves for having adopted a standard of matriculation higher than even that in force in England, in which we claimed for ourselves a desire to advance the interests of the profession more than that of any other similar institution; and to-day we are found degrading the matriculation which we adopted last year, and striking from it that which almost every man in this Council who supported it, declared to be the important part of that curriculum; we all claimed if there was one thing more than another the medical students of this country should be well grounded in before they were registered, it was that they should have a thorough knowledge of science, and pass a science examination; and that examination was explained here to be that of the senior leaving examination in science. To-day we are told it is not intelligible, and yet the men who say it is not intelligible to-day are the men who supported it last year, and urged upon this Council it should be passed. To-day we are asked not to improve that matriculation examination, if it be unintelligible, as we are told, but we are asked to degrade it to the lowest possible degree; to eliminate from it that which last year we declared was all-important and all-necessary. It was in the power of these gentlemen who declare it is unintelligible, to have made it intelligible by saying it should be the honor departmental pass examination. But have they done so? No.

I do not feel inclined to impute motives to anybody, but I tell you now, I shall not cease from this moment forward to press upon this Council, and to press upon the Legislature the adoption of the measure of which my friend, the member for Ottawa, gave notice last night. I see clearly that if we are to have anything like permanancy in our curriculum we must go to the Legislature and obtain power; we must get from them the power to do what the University of Toronto does, make its curriculum a curriculum of five years, that the profession of this country and the students may know when an announcement is made, that this college makes it in good faith, and intends to carry it out in good faith, and not to make itself a laughing-stock to the country, and fraudulently to put before the young students of this country that which they do not intend to carry out, and which upon the face of it they intend to repudiate. We have had the young men since our session last June, all over the country preparing for this science examination.

Some of the gentlemen on this Board have come here to-day with the money to pay the fees for these students who propose going up for this examination. I feel that we ought not to be put in this light before the public of this country; and I say to you that there is great warrant for a great deal that has been said as regards the manner business has been conducted in this Council; will not the men who are complaining of the conduct of this Council, who are agitating for its reconstruction, be enabled by our conduct here to-day to go to the Parliament of Ontario, and to say to our college in that Parliament that we have not kept good faith with the students of this country; that we have not kept faith with the profession of the country; and, much as I dislike to have any change made in the Constitution of this Council, I feel that there is an under-current from some quarter which is always endeavoring to undo the good work that is done by the Council; I shall endeavor to prevent that under-current in the future, if God spares me; and no matter from what quarter I can get assistance to put an end to this thing I shall get it.

Dr. Rogers—I quite agree with everything that my friend, Dr. Bergin, has said in regard to this movement by Dr. Moore, the representative of Queen's University in this Council. I will go further than that, and say it is most unfortunate at the present moment when the agitation of the profession all over Ontario is such that, as territorial representatives, we can hardly fight it; I have had to fight it in my division. I had a petition signed by members of my division to the Legislature asking them to have confidence in the Council; but I ask you in the face of the member for Queen's University, coming here and asking to take away certain portions of our matriculation, can I go back to them and say, next session, "Gentlemen, sign a petition of that character?" I tell you I will not do so. But if this matter is continued; if we cannot have a permanency in regard to the matriculation; if the matriculation is to be changed and altered, and kept low; I for one will say if this Council will not elevate it, I shall go myself to the Legislature with those that are agitating for a change, and ask for a change.

Dr. Bray—You couldn't get it.

Dr. Rogers—It may be so; but have you a right to make an attempt to lower the standard of matriculation in view of what occurred in 1891? I think I am within the bounds of strict truth when I say that one of the reasons why the doctors in the House on that occasion supported the amendment allowing the Council the power to erase the names of members of the College from the register for non-payment of dues, and I say it openly, was because you were asking for power to increase the matriculation standard, and said you were going to do so. I ask you, Mr. Chairman, as a man of education, can you say, if Dr. Moore's motion carries, that the standard has been raised from a second-class teacher's examination. I certainly say, from my knowledge of the departmental arts regulations, that such is not the case. But, if Dr. Moore had the desire to benefit the profession and make it better, would he not have asked you to change the wording to "an honor matriculation departmental examination"; and add the words "physics and chemistry," or "botany," or whatever you want added. But he wants to make it lower. I say, at this stage of the history of the medical education of Ontario, when the whole profession almost are up against us, we are making a great mistake, an especially great mistake for a school man as the representative of a university; in that respect I hope for the sake of this Council, and the school representatives in this Council, that this motion will not be carried.

Dr. Williams—I rise more particularly to repudiate some of the remarks that have been made by the last two speakers. One of those speakers has gone so far as to say that this Council has fraudutently treated the students or the public. For a member of this Council to say that, is something wholly unjustifiable.

Dr. Bergin—I repeat that to make such an amendment as this is, is to put a fraud upon the profession, the students, and the public, too.

Dr. Williams—I will say that for one I repudiate any such idea being put forth—that the Council have acted in any fraudulent manner whatever. The learned gentleman says that there have been amendments made every single year. I ask if there has been a member of this Council who has been more anxious to make amendments to that curriculum than that very gentleman himself? Not one.

I admit he makes them where he thinks it will improve the curriculum; but I ask whether the other members of the Council have not a right to improve the curriculum? I do not think we have a right to brand Dr. Moore with wishing to lower the curriculum; that is not the idea, he simply wishes to put it in a harmonious way with the department so that it can be satisfactory. That is his idea. I believe there are other members of this Council who are just as anxious as Dr. Bergin, or the learned gentleman from Ottawa, to have a good standard; and some just as anxious that science shall be part of that standard; but they are not willing to allow other gentlemen to move in the matter because they can not have their own way in every particular. And to then turn around and brand this Council with not acting in good faith towards the students is wrong. I claim the Council have acted as fairly and honorably towards the students as any body of an equal number of men that can be found in this country. I admit, in all frankness, if you can get the curriculum once in a satisfactory shape and it then was made permanent for five years, as that of the University is, it would be a wise thing. But, before you can fix it in that way, you must make it harmonize with the teaching department; and that is what Dr. Moore is seeking to do—to make it in harmony with the teaching department; and then you can make it permanent. I am in favor of the science course; I believe Dr. Moore is in favor of the science course; I believe every member of the Council is in favor of the science course being added as one of the branches; but the question is, can we do it and have it satisfactory? It is a question of practice. I understood from one of the letters Dr. Moore read, it was possible for us to have physics and chemistry; if that be true, in place of Dr. Moore's motion to strike out that clause, I would prefer that physics and chemistry be inserted; and then we will get as large a part of what we want as we can; and the only feature left out will be the botany. According to our understanding, when that clause was adopted before, it was physics, chemistry and botany. And, as I take it, one of those letters said we could have physics and chemistry, and we, therefore, lose only botany, and that would come up in the latter part of the course, and the medical man wouldn't suffer so much. It strikes me Dr. Moore had better amend his motion by taking in physics and chemistry.

Dr. Geikie—I would like to say another word on this subject; last year I was strongly in favor of the retention of the clause just as it is in this, "the prescribed science course added," until I found, as Dr. Moore has described, as far as practice is concerned, that everything in botany is in the first year's examination. I am far from desiring to do away with the science course; it is simply, as Dr. Williams puts it, to harmonize matters, to make the examination intelligible; and, of course, to keep it up because everybody knows that the University Departmental Examination in Arts is a most excellent one. And as to letting the science course go, even if Dr. Moore's motion should be adopted,—I cannot speak of other institutions, but I know we include everything of it in the first year's examination,—botany, as well as the other departments.

Dr. Bergin—With regard to the intelligibility of this clause 1 of the Announcement, let me read to you what occurred when the Minister of Education was here last year (page 174), Dr. Geikie asked the Minister, "Supposing students were to take the Departmental examination which you have alluded to, embracing science, could there not be some special arrangement made, by which, in the case of every medical matriculant, in addition to the science, Latin should be compulsory?" And the answer of the Minister was, "Yes, we have done so before, and we should do it in the future, if asked to do so by this Council. You may have Latin if you want it. You would make it compulsory upon your students, and we would examine your students for you." That is, give an examination in science, and the Latin added to the ordinary examination; "you may have Latin if you want it." Then I asked the Minister, "Am I to understand the Minister to say that Latin would be compulsory in the matriculation; I would like to ask the question whether the Department would not at the instance of the Medical Council, if they requested it, make science a necessity?" The Minister said, "I think the feeling of the University has not ripened to that point yet, although the tendency is in that way. I do not think they would do it until after they change their curriculum for 1895." I said then, "the University would probably take it for their matriculation for the College of Physicians and Surgeons." And the Minister said, "The College of Physicians and Surgeons could do this; they could take the matriculation in Arts, with science for medical matriculation just the same as they have been taking the departmental examination with Latin for medical matriculation. You can have either way. We conduct the examination, and we will do anything of that kind.,'

Dr. Geikie—And we believed that, and found there was a difficulty such as Dr. Moore has described.

Dr. Campbell.—So much has been said already on this subject that I will not long occupy the attention of the committee; but it seems to me that it should be taken for granted it is the desire of every member of the Council to keep the standard up as high as we can; and it is necessary in keeping that standard up to have in mind the question of practicability to work it; it seems from the letters that have been read that there is a difficulty in making it work just exactly.

Dr. Bergin—The letter that was read here says they find it difficult to group the optional subjects; and that is not what is before the Council at all.

Dr. Campbell—If there is or if there is not a difficulty I think the matter could be got over by following the suggestions in the letter of the Deputy Minister; and then the science course will be practically fixed all right, if Dr. Moore would add to his amendment the words "Physics and Chemistry," if not included."

Moved by Dr. Moore that section one, clause one, page twelve of the regulations be amended by striking out the following words in the fifth and sixth lines, "with the prescribed science course added and compulsory"; and the following substituted, "every one desirous of being registered as a matriculate medical student in the register of this College, except as hereinafter provided, must, on and after the 1st November, 1892, present to the Registrar of the college the official certificate of having passed the departmental matriculation examination in arts, and, in addition, if not included, physics and chemistry."

Dr. Henry—What about botany?

Dr. Bergin—That is had in another place.

Dr. Rogers—Is that "pass" or "honor" examination?

Dr. Britton—It says "departmental matriculation examination in Arts," and that always means "pass"; it is not an honor examination unless so mentioned.

Dr. Rogers—I move in amendment that the following be the words, instead of those moved by Dr. Moore "present to the Registrar of the college the official certificate of having passed the honor university departmental matriculation examination.

Dr. Williams—I would like to know what becomes of the arguments of those gentlemen who are wanting stability. Here are the very men that a few minutes ago thought the curriculum as to matriculation should not be changed. And when we merely wanted to change it to bring it into practicability and harmony with the teaching department, they now come up and ask to make radical changes. What about the want of faith with the students? I think you should vote that down without any ceremony whatever. While we have been endeavoring just to harmonize this with the teaching department they now, without notice to the students at all and without trying to keep faith with them, and just after having branded this Council for not keeping faith, these very same men come before the Council and ask them to break faith in the very way they had been charging us with doing.

Dr. Bergin—I must repudiate the language of the last speaker. He attempts to put in our mouths words that, so far as I am concerned at any rate, I did not utter; he attempts to make me responsible for an action which I have not undertaken. He says to this Council that he will support the amendment of Dr. Moore, which strikes out the science clause.

Dr. Moore—It does not not strike it out altogether.

Dr. Bergin—You have struck it out altogether.

Dr. Moore—We have not struck it out altogether. It was an optional subject.

Dr. Bergin — There was not a word about "optional subjects." Dr. Rogers shows the only way in which science can be added and harmonized with the regulations of the department; and this gentleman gets up, and with that specious sophistry, of which he is a master, says these gentlemen want to make radical changes. I am surprised he should think he could impose upon a body of learned men, such as we have here, such a specious argument as that, and hold anybody guilty of degrading the examinations; when he says we are asking to make radical changes, we propose the only change which would really harmonize this examination with the examination of the department. I will go further back than this and say, there must have been some concocting of something with somebody, to have an officer of the department, in the teeth of the pledge of the Minister given last year, to say this is unintelligible and can not be carried out.

Dr. Moore—I think that those remarks are entirely uncalled for; and I throw it back to Dr. Bergin, my old friend, that there was no undue influence, and that there was no concocting nor underhand work. I think it comes very badly from Dr. Bergin, to impute any such motive to me. So far as Dr. Rogers' remarks are concerned I think every old member of this Council will bear me out in saying that I, from almost my first taking my seat in this Council, have been endeavoring to raise the standard of matriculation examinations; and it comes with bad grace, I think, from him who has only been for two or three years in this Council, to stand up before you, and every one of you who know the facts to be different and say, I am endeavoring to drag down the standard I am only endeavoring, and have only desired to endeavor to make it intelligible. I said last night in committee that I had no desire to bring down the standard of matriculation. What I wanted and desired (and I walked up to the Deputy Minister's this morning) was to get it put into shape that we could understand it. I have laid the facts before you; and I think that those motives should not be imputed to me; and I think it comes with very bad grace from any member of the Council to impute any such motives to any other member of the Council. I think that you will bear me out, that I have, since I have been in this Council endeavored to advance the interests of medical education; and I do not consider it any disgrace, but I consider it an honor, and a high honor, to represent a great educational institution like Queen's University; and I hope that such unseemly remarks may not again be expressed.

Dr. Rogers—In reply to the pleasant remarks of my friend, Dr. Moore, I wish to say, I have no wish to impute to him unworthy motives; I simply had no alternative but to take the course he had pursued as indicative of what seemed to me an attempt to lower the standard of medical education. I will leave it to you as educationalists, or to any person here, that science being an optional subject in the departmental Art matriculation, when he left it out was it not an attempt to lower the standard? If it was optional, students could take the option. As we had it the students had to take it.

For Dr. Moore to say he had no intention,—I wish to draw attention to another point; last night we, in all faith, wanted to see the Deputy Minister ourselves to talk it fairly over, and to come to a conclusion; and we decided to leave it till to-day; but instead of that he sprung it on to the meeting now; and we have been now, for an hour and a half, discussing a matter that has never been before the Committee on Education.

It is charged to me by Dr. Williams, that I wish to make changes in the curriculum; that I am not consistent. I have a motion here which I propose to move, that the words "honor university departmental matriculation," be substituted for "pass departmental matriculation, etc., added and compulsory." We all know that the honor university departmental matriculation will include science; and as it has been the wish of Dr. Williams, and so stated by him, and it has been the wish and the expressed desire of many other members of this Council to have science in the matriculation, this gives them a chance of getting science into the matriculation examination; it is true that in accordance with the views expressed by my own constituents, and I am acting and speaking for them, that I advocate raising the standard if possible; and not to lower it; and if it is possible for me to change it to an honor matriculation, I am only acting for my constituents in advocating it; and I say again, in doing that I am only keeping faith with those members of the Legislature who in giving us the power to erase a physician's name from the register for non-payment of dues, did so on the understanding that the matriculation examination should be raised very materially; and I maintain, and I have maintained, the matriculation examination of our Announcement is not much of a raise from the old second class matriculation; and in making my motion I say this will be a material advance.

Dr. Campbell—Do I understand now that Dr. Moore's amendment by the words he adds will simply leave the matriculation examination as we desired to have it last year? It would be no material change of matriculation examination from what we fixed last year; that is it will be the pass university examination, with the science course added practically.

Dr. Britton—Yes, I should think so; I should think it does not materially affect clause one on page 12, except to put it in a more tangible form.

Dr. Campbell—Botany is covered in another place I believe. It seems to me if Dr. Moore's amendment is put in the shape it is in now, we are simply making the old clause workable, and not making the standard any lower while Dr. Rogers' amendment would be raising it, and, therefore, making an alteration in our curriculum.

Dr. Fowler—Before that amendment is put I would like to know whether the honor examination is the same in all colleges. I know that Dr. Grant told me at Kingston, that our matriculation, which was established last year, was equal to what he called the senior matriculation, or the examination at the end of the first year in Arts. If that is what you mean, I am quite in favor of it.

Dr. Rogers—That is just what I mean, the honor matriculation of the department; and it is not any higher than I think, from Dr. Grant's letter to me, really is the matriculation examination of Queen's University; and he stated in a letter he recommended this very examination.

Dr. Moore—Dr. Grant recommended to me to secure the departmental matricluation examination, and I so stated last year; I am on record, and I have his letters to that effect.

Dr. Logan—Since there appears to be some doubt in reference to this question not yet settled by the highest authority, would it not be better to lay this part of the report over and consult the Minister of Education himself?

Dr. Luton—Under this proposed amendment can a student go to our ordinary collegiate institutes and receive there the necessay education to enable him to matritculate. I understand that there may be some collegiate institutes that teach botany, and others that do not. I think, therefore, it is only fair and right that the student should be able to acquire the matriculation education at the collegiate institutes, and not be oblidged to go some where else for it.

Dr. Henry—I move that the Committee rise.

On being put by the chairman the motion was lost.

Dr. Miller—I had not the honor of a seat here when the curriculum was adopted and I would ask from the chairman of the Education Committee at that time whether the amendment proposed by Dr. Moore, adding chemistry and physics is about the examination which was adopted by this committee last year.

Dr. Bray—Yes.

Dr. Bergin—I do not so understand it.

Dr. Rogers—It included botany.

Dr. Miller—Botany is taught in all the schools in the first year.

Dr. Rosebrugh—I think it is only due to us that Dr. Logan's motion should prevail, and that we should have the Minister of Education here.

Dr. Phillip—I do not see what object there would be in asking the Minister to come here to give an opinion; we have already got an official opinion from the department, and in ninety-nine cases out of one hundred the Deputy Minister gives the opinions on these matters; and the Deputy Minister having given an official opinion from the department that is a departmental opinion, the same as if the minister had given it; and it would be only occupying the time of the Council to ask the Minister to come.

Dr. Bergin—I do not think we ought to ask the Minister to come down here. I think we have his opinion now. We have read the official report of his statement made to the Council last year. I believe at this moment that the Minister is engaged in a very important work from which be does not desire to be moved under any circumstances, or to have his mind disturbed by other matters; and I think we ought to be quite competent to settle this matter without him, having the knowledge of what he desires to do. Dr. Moore says and Dr. Bray seems to agree with him that the science course added which we asked for last year was merely physics, chemistry and botany. I am quite satisfied that this would not by any means fill the curriculum that we proposed; on the contrary—it may be that I am mistaken, as I will not say that I am correct, my impression was, that the science course was that precribed for the senior leaving examination, with the departmental matriculation in arts. I regret more than I can express the fact that the Council, or that any portion of the Council, has seen fit to change that paragraph of the Announcement which was passed last year; but I don't desire that the Council should stay here all day in discussion over this matter, but whatever the Council may resolve to do, my resolution is in the future to obtain if I can what I cannot get today; and I shall leave no stone unturned to do that.

On Dr. Moore's motion being put it was declared carried.

On motion of Dr. Harris, the Committee arose. Dr. Fowler in the chair.

Dr. Harris moved the adoption of the report of the Committee of the Whole, as amended, seconded by Dr. Bray.

Dr. Day gave notice that at the next meeting of the Council he would move that the Rules of Order be suspended, and that the Council consider the case of Dr. Nelson Washington.

Dr. Bray moved, seconded by Dr. Ruttan, that the Council adjourn to meet again at 2 o'clock p.m., Friday, June 17th, 1892.

AFTERNOON SESSION.

Friday, June 17th, 1892, 2 o'clock p.m.

The Medical Council met, the President in the chair.

Mr. B. B. Osler, Q.C., sitting as legal assessor with the Council.

The Registrar called the roll. All present excepting Sir James Grant.

The minutes of the last meeting were read and confirmed.

Dr. Day moved, seconded by Dr. Harris, that the Rules of Order be suspended, and that this Council now take up the case of Dr. Nelson Washington. Carried.

Dr. Washington and his counsel, Mr. N. G. Bigelow, Q.C., M.P.P., on the request of the Registrar, instructed by the President, were here admitted to the room.

Dr. Day moved, seconded by Dr. Johnston, that Dr. Nelson Washington be now called on to show cause why the Council should not proceed to deal with his case. Carried.

The Registrar read the notice to show cause, addressed to Dr. Nelson Washington, and his solicitor, Mr. N. G. Bigelow, Q.C.

Mr. Bigelow—I appear for Dr. Washington. I do not know, Mr. President, in what way Dr. Washington can show cause to the adoption of the report of your Committee, unless he were to challenge the soundness of the report as based upon the evidence. I do not understand that you desire a discussion to arise here, upon the sufficiency of the evidence to support the charges.

I could also object, and I may say here, I do object, to this Council acting upon the report, for the reason that the Medical Act does not authorize the making of the code of ethics binding upon all the members of the profession; that the code of ethics is outside of the provisions of the Medical Act. I think the offence charged is not of a character which is contemplated in the statute, for which you may erase the name of a member from the roll. I take this objection because it goes to the root of the whole matter; I take it, because it is my duty to take it; I take it most respectfully, Mr. President, purely and simply because I conceive it to be the law. I do not know that it would serve any good purpose to raise a further discussion before this body to-day. I do not think that the requirements of the profession in this Province demand that the name of Dr. Washington should be erased. Possibly if he were gagged, the demands of the profession would be fully satisfied. The statute under which these proceedings are supposed to be authorized, permits the Council to erase the name of a member for grossly professional misconduct; I take that to be professional misconduct in his treatment of his patients, or in his relations to his patients; and not the fact that he has put an advertisement in the paper; nor as to the truth or falsity of what he may have stated in the paper. The object of the Council in taking this proceeding, I believe to be, as they conceive, to ensure gentlemanlike demeanor of professional men, amongst each other more especially. I understand at the last meeting (at that time I was not counsel for Dr. Washington), a letter was put in by his then solicitor, Mr. Fullerton, submitting the form of an advertisement, and that has not been complied with; and that is the cause of the present action of the Council. If it were deemed advisable, Mr. President, I would like to have a committee of the Council named, with whom I could confer for a short time, as to whether or not it would be advisable to proceed further, or whether an arrangement could not be made by which an end should be put to this business, as far as this gentleman is concerned. I apprehend the Association is not desirous of ruining him. The life-long study and large expense gone to, necessary in preparing a man for his professional career, are very great considerations; and if it is possible to enforce the discipline of the profession without expelling him, I am quite sure it would meet with your wishes, and, perhaps, the wishes of the Council. If that could be so, I would be very glad to meet with a number of gentlemen of your Council, and see what could be done.

The President here asked Dr. Washington if he had anything to say why the Council should not proceed to deal with the case.

Mr. Bigelow—Dr. Washington is represented by me.

Mr. Osler—Are we to understand that Dr. Washington does not desire to speak.

Mr. Bigelow states that he does not.

Mr. Bigelow—As no action is taken upon my suggestion, I suppose I may understand none is intended to be taken in the view which I take.

Dr. Day—With regard to a consultation, it is a matter with the Council. I have no objection to consult, or for a committee to be appointed by the Council to consult with Mr. Bigelow and his client; but I would simply call the attention of the Council to the result of our former deliberations with Mr. Fullerton. This letter of Mr. Fullerton's shows clearly what was done; it is addressed to myself (reads letter). I may say that Mr. Fullerton and myself talked the matter over fully, and in a very friendly spirit. The action the Council took in consideration of the letter received from Dr. Nelson Washington is set out at page 136 of the Announcement 1890–91. After having had these frequent consultations, and after the letter having been written, it is for the Council to consider whether consultations with a committee would be serviceable or not. I do not wish to express an opinion in the matter. I do not wish to lay any stones in the way of arrangement of the matter in any way, but after having had these negotiations, and this letter, with the result of it, it is for the Council to say whether they wish to have further private deliberations through a committee or not.

Dr. Campbell—Perhaps, Mr. President, in view of the facts that it appears that the arrangement come to with Dr. Washington two years ago, was not successful, and that his promise was not fulfilled, the counsel for Dr. Washington will be prepared to tell us what guarantee the Council would have if we made a similar arrangement now, that it would be faithfully carried out. I ask this as a matter of information merely.

Mr. Bigelow—I do not know that this body is authorized to receive any bond, or anything of that kind; I suppose such a bond would be absolutely void, as we can give no security further than the honor of the man; I apprehend that is the position we are placed in of necessity. I am assured by Dr. Washington that he kept rigidly within the form of advertisement, until he found the Association allowed other specialists, without demur, or bringing them up, to go on advertising. I don't know that two wrongs can make a right. I am not here to reason away the letter in any sense; the letter is here and speaks for itself. Nor do I say that the excuse he gives is a satisfactory one. I do not pretend to say that; I only say it is a weakness of human nature, he being engaged in the peculiar department of the profession, and the peculiar mode of practice, that of travelling about.

There is only one further assurance that could be given; and that I apprehend would be so binding upon him that he could not evade it. That would be an undertaking on his part not to show cause in the future against his being struck off, if he violates his pledge; because it is not unknown to the gentlemen here, that, while I am not throwing it out in any other sense than an argumentative sense, this would not be the end of the proceedings; there is an ultimate resort, an ultimate appeal which can be taken; but if he gives his undertaking not to resort to that, and, if he violates again, to leave himself entirely in the hands of the Council; I apprehend his undertaking to waive all rights of appeal would be binding upon him, and would be the strongest possible obligation that could be given by a professional man.

At the request of the Council, Dr. Washington and Mr. Bigelow retires, to enable the Council to consult as to the step that they shall take in this matter.

After consultation with Mr. Osler, Dr. Bergin moved, seconded by Dr. Orr, resolved, that no further conference be had with Dr. Washington, or with his representative, on the subject now before the Council. Carried unanimously.

Dr. Williams—I would suggest, if it is not considered objectionable by our solicitor, that the yeas and nays be taken on this question so as to make a correct record.

The Registrar then took the yeas and nays as follows:

Yeas—Doctors Bergin, Bray, Briton, Campbell, Day, Fenwick, Fowler, Fulton, Henderson, Henry, Logan, Luton, Miller, Orr, Philip, Rogers, Rosebrugh, Ruttan, Vernon, Williams—Doctors Geikie, Sir James Grant, Harris, Johnson, Moore and Thorburn, not being present in the room at the time the vote was taken.

Dr. Williams—It has been suggested you should ask for the nays.

The President—All present voted yea.

On instructions from the President, the Registrar called Dr. Washington and Mr. Bigelow, who re-entered the room.

The President—Dr. Washington, I have been instructed by the Council to read to you the following resolution, which was carried unanimously by the meeting: Moved by Dr. Bergin, seconded by Dr. Orr, and resolved, that no further conference be had with Dr. Washington or with his representative on the subject now before the Council.

Dr. Day—That is, the subject of having further conference. Of course, Dr. Washington still has the right to remain here and show cause why he should not be stricken off our roll.

Mr. Osler—After what was done on the report of the Discipline Committee which has come to the knowledge of the Council, they feel they cannot take any further undertaking from Dr. Washington.

Mr. Bigelow—Then I understand the action to mean that we must try ultimate conclusions of the law. I suppose that is what it means.

Mr. Osler—As we may advise.

By Mr. Bigelow—I certainly will not try conclusions with this Council on that subject after that resolution. There is no proposed action of the Council yet, I understand, so that I have nothing to show cause to.

Mr. Osler—They have not yet acted. They are in a show cause condition.

Mr. Bigelow—No. There is no resolution of the Council against which I can move.

Dr. Day moved, seconded by Dr. Moore, that:

Whereas the Committee on Discipline reported to the Council in the case of Nelson Washington, M.D., as appears in the printed report of the proceedings of the Council for the year 1890, at pages 136 and 137, and as appears by the report in the case on file in possession of the Registrar;

And whereas the said Nelson Washington has been called upon to show cause why the Council should not act upon the report of the said committee, as appears by the notice served upon him;

And whereas the said Nelson Washington, M.D., has appeared upon the said notice in person, and by counsel, N. G. Biglow, Q.C., M.P.P., and the Council has been addressed by the said counsel for Nelson Washington, M.D., showing cause to the said notice;

And whereas the offences charged and reported as proved by the said committee are not within the premises contained in sub-section 2 of section 34 of the Ontario Medical Act as amended;

And whereas as to the said facts stated in the report of the said Committee on Discipline, the Council now resolve to act, and hereby adopt the said facts and report as to the finding of the facts in the case of the said Nelson Washington, M.D.; be it therefore

Resolved—That upon the applications herein, a d upon the enquiry herein before the said Discipline Committee, and upon the report of the said committee, and upon the facts herein found and adopted by the Council,

That the name of Nelson Washington now appearing in the register of the College of Physicians and Surgeons of Ontario, is hereby erased from the said register.

That the Registrar is hereby instructed to amend and alter the said register according.

Carried unanimously.

Fife Fowler, *Pres.*

Mr. Bigelow—I have only one or two observations to make in respect of the proceedings now taken. I object that the offences, if any, disclosed in the proceedings in the matter of Nelson Washington, Doctor of Medicine, are *ultra vires* of the Medical Council; that the offences charged are not within the Medical Act; that the rules and code of ethics are also *ultra vires* and void; and that for the alleged offence this Council has no power to erase the name of Nelson Washington from the register.

Mr. Osler—The Council have not discussed, or voted on, the motion.

The President here put the motion, and declared it carried unanimously.

Mr. Bigelow—Under the section which provides for supplying to the accused a copy of all the proceedings from the beginning down to the finding certified to by the Registrar, I now make application for those papers. Mr. President, will you kindly supply those forthwith.

Dr. Rogers moved that the order of the day be resumed, seconded by Dr. Moore. Carried.

MOTIONS.

Dr. Miller moved, seconded by Dr. Moore, and resolved, that the Finance Committee be requested to furnish a return, showing:

First—The cost up to June 14th, 1892, of the site and building known as the Medical Registration Office, etc.

Second—The amount paid up to June 14th, 1892, on account of said site and building.

Third—The amount of the indebtedness standing against the said site and building on June 14th, 1892, specifying the amount due on account of principal, and the amount due on account of interest.

Fourth—The amount of revenue which has been received from rent from year to year.

Fifth—The estimated amount of revenue provided all the offices in the building were rented. Carried.

Dr. Rosebrugh presented the report of the Committee on Registration as follows:

The Registration Committee beg to submit the following report:

That in reference to Dr. Elliot asking to be registered with the general profession,

Your committee recommend that Dr. Elliot be informed that he must comply with the Act, viz., by appearing before the examiners.

In reference to the petition of Jacob Zelinski, again asking to be registered,

Your committee, after hearing his solicitor in his behalf, find that he has not furnished any proof of having complied with the Medical Act, and, therefore, recommend that his application be refused.

In reference to the advisability of the Council establishing a code of ethics, with the view of requiring all students to subscribe to the same on being registered,

Your committee, after having obtained the advice of the solicitor thereon, are of the opinion that it is not advisable for the Council to establish a code of ethics at the present time.

All of which is respectfully submitted.

J. M. ROSEBRUGH, *Chairman.*

Dr. Rosebrugh moved, seconded by Dr. Rogers, that the report be received. Carried.

Dr. Rosebrugh moved, seconded by Dr. Orr, that the report be adopted. Carried.

On motion of Dr. Rosebrugh, seconded by Dr. Philip, the Council adjourned to meet at eight o'clock, p.m., Friday the 17th of June, 1892.

Evening Session, Friday, June 17th, 1892.

The Council met at eight o'clock. The President, Dr. Fowler, in the chair, called the Council to order.

The Roll was called by the Registrar; all present, excepting Sir James Grant.

Minutes of the previous meeting were read and On Motion confirmed.

NOTICES OF MOTION.

No. 1. Dr. Ruttan—*Re* the Property Committee.

No. 2. Dr. Bergin—That the Legislature be asked to amend the first paragraph of Section 6 of the Medical Act by adding the following words thereto, "That such members shall be elected by graduates of the said Colleges and Bodies duly registered under the Act, and shall be elected by ballot in the same manner as is provided for the election of members resident in the Territorial Division."

MOTIONS.

Dr. Rogers moved, seconded by Dr. Bergin, that in the opinion of the Council of the College of Physicians and Surgeons of Ontario, the Act known as "The Ontario Medical Act" should be amended by the Legislative Assembly of this Province as follows:

1. That sub-section "firstly" of section 6 of the said Act and clause "firstly" of the "Act to amend the Ontario Medical Act of 1887," be repealed, and the following substituted therefor:

Firstly.—One member to be elected in the manner hereinafter described by and from amongst the medical graduates of each of the universities and colleges hereinafter designated, to wit: The University of Toronto, Queen's University and College of Kingston, the Universtiy of Victoria College, the University of Trinity College, the Ottawa University, the Western University, Regiopolis College, and of every other university in the Province now by law authorized or which may be hereafter authorized to grant the degree of doctor of medicine, and which establishes and maintains to the satisfaction of the College of Physicians and Surgeons a Medical Faculty in connection therewith.

2. That sub-section 2 of "firstly" be amended by inserting after the word "lecturer" in the first line thereof the words "examiner or paid officer."

3. That a clause be added and be designated as sub-section 4 of "firstly" as follows:

(4) The members to be elected as aforesaid shall be residents of this Province, and any person who is a medical graduate of more than one of the universities or colleges designated shall only have the right to vote as a graduate of one, and the manner of holding such election shall, with respect to the time thereof and the taking the votes therefor, be determined by a by-law to be passed by the Council, and in default of such by-law being made, then the Lieutenant-Governor shall prescribe the time and manner of holding such election.

4. That section 7 be repealed and the following substituted therefor:

Section VII.—The members of the Council shall be elected for a period of five years, but any member may resign his appointment at any time by letter addressed to the President or Registrar of the Council; and upon the death or resignation of any member of the Council, whether Territorial or Collegiate, the Registrar shall forthwith cause a new election to be held in such manner as may be provided for by by-law of the Council; and such election shall be conducted in accordance with the by-laws and regulations of the Council, but it shall be lawful for the Council during such vacancy to exercise the powers hereinafter mentioned.

5. That Section XI of the said Act be amended by substitnting for the words, "together with the members to be appointed by the general colleges and bodies as mentioned in Section VI. of this Act," the following: "Together with the members to be elected by the medical graduates of the several universities and colleges mentioned in Section VI. of this Act."

That Section XXIX be amended by substituting "seven" for "five" in the eighth line thereof.

Motion referred to Committee on Legislation.

Reports of Standing and Sub-Committees.

Dr. Day presented report on behalf of Committee on Rules and Regulations.

Gentlemen,—Your Committee on Rules and Regulations beg leave to report that they met and organized on the 15th inst., electing Dr. Henry W. Day, Chairman, and Dr. Luton, Secretary.

A communication from the Ontario Medical Association was referred to us, embracing a resolution passed by that body requiring that fuller reports of the Council proceedings be furnished to the profession. With this request we are fully in accord, and are glad that the Council, by its action in employing a stenographer, has already anticipated that request.

The second part of the communication contains a unanimous endorsation of the legislation obtained by this Council, and the action taken thereon, and we would suggest that a suitable reply be sent by the Registrar.

We have, also, had placed before us, a letter of thanks from the Ontario Medical Association for the use of a portion of this building for their annual meeting in 1891.

We have had referred to us for consideration, a tariff of fees adopted by the Simcoe District Medical Association, and beg to say that the territorial limits of this Association are but a portion of the Saugeen and Brock Electoral Division, a tariff of fees for which has also been placed before us.

Inasmuch as there is no wide difference between the two tariffs, and as the latter covers the territory embraced in the former, and as Dr. Henry, the Territorial Representative for Saugeen and Brock, assures us that the confirming of the latter by this Council will be perfectly satisfactory to the members of the Simcoe District Medical Association, and to promote uniformity in the tariff over a large and important Electoral Division, we would recommend that the tariff of fees as approved and presented of the Saugeen and Brock Division be certified and confirmed by this Council and thus made legal.

At a meeting of your committee held on the 17th inst., we had for consideration a tariff of fees of the City of Hamilton, a part of the Burlington and Home Division. We find the same reasonable, and recommend that it be passed and legalized by the Council.

All of which is respectfully submitted.

Henry W. Day, *Chairman.*

Dr. Bray moved, seconded by Dr. Day, that the report be received.

Dr. Day moved, seconded by Dr. Bray, that the report be referred to the Committee of the Whole. and that the Council now go into Committee of the Whole on this report. Carried.

The Council then resolved itself into Committee of the whole, Dr. Day in the chair, and the petition was read clause by clause and passed, and on motion the Committee arose.

Dr. Day moved, seconded by Dr. Bray, that the report of the Committee of the Whole on the report of the Committee on Rules and Regulations be received and adopted. Carried.

Dr. Johnston presented the report of the Printing Committee.

Gentlemen,—Your Committee on Printing beg leave to report that they met and organized, and find that the printing of the annual Announcement, etc., will require to be placed under the supervision of the Chairman and Registrar, tenders to be asked for as usual.

All of which is respectfully submitted.

Arthur Jukes Johnson, *Chairman.*

Dr. Bray moved, seconded by Dr. Johnston, that the report be received and adopted. Carried.

Dr. Philip presented the report of the Finance Committee as follows:

Gentlemen,—Your Committee on Finance beg leave to submit the following report, viz.:

We have carefully examined the books of the Treasurer, compared them with the vouchers, and find them to be correct.

The books of the Registrar have also been examined and compared with the Treasurer's and also found correct.

Our revenue this year, especially from the increase in the payment of the annual assessment, has been greater than usual, thereby enabling the Council to pay off certain floating liabilities which have been hampering the financial resources of the Council for years past.

Owing to certain changes proposed to be made in the method of conducting the examinations, we hope this year to be able to make a very considerable reduction in that department in future.

The balance to the credit of the Council in the Imperial Bank of Canada at present is $371.47.

The following accounts certified, we recommend to be paid, viz.:

The Boiler Inspection & Insurance Co., one year's insurance	$20 00
For insurance on elevator in Citizens' Insurance Co.	50 00
McDougall & Robertson, St. Thomas, for legal services	17 00
Expenses W. Webb for travelling, etc., in the case of appeal of Howard made by J. W. White for violation of the Medical Act	29 15
For advertisement (*Canada Lancet*)	5 00
Expenses in conducting prosecution	10 00
Expenses in repairing building	11 91
Dr. Fife Fowler as Deputy Registrar at the examinations held in Kingston in 1892	40 00
Total	$183 06

That the applications of J. W. White, M. A. Shaw, E. T. Barber, for rebate of fees cannot be recommended.

That the applications of W. G. Bryson, W. J. Hunter, M. J. Brown, Samuel H. Fee, and H. L. Cook for exemption from assessment cannot be entertained.

With reference to the motion of Dr. Miller, in which he asks for a return of the expenditure of the year up to June, 1892, and the estimated expenditure up to June, 1893, the information so far as your committee can furnish it can be obtained from the returns laid on the table by our Treasurer.

Your committee have carefully considered the report of your prosecutor, W. Webb, and particularly the last section, in which he intimates that if you wish his services it must be with material increase of salary.

We believe that if prosecutions are vigorously carried on, the number must decrease from year to year, and the income to the prosecutor from that source would gradually lessen. We are therefore of the opinion that it will be advisable to employ some person in the capacity of prosecutor who is not wholly dependent upon it for a living, but who can give his services to the work when required, and as may be directed by members of the Council.

We have therefore to recommend that you employ some person in that position.

Your committee have had before them the proposition of the *Ontario Medical Journal* Publishing Co., in which they propose to have prepared and published stenographic reports of all Council proceedings, do the advertising required by the Council, and other matter, and furnish free to each of the College of Physicians and Surgeons of Ontario a copy of a journal which shall be fully equal in every respect to the medical journals now published in Toronto, for which services they ask the sum of $1,500 per annum.

Your committee are satisfied this would fill a great want that has long been felt by the Council in bringing them in touch with the profession, by giving and making accessible all information on matters coming within the purview of the Council.

We find that this proposition would save to the Council for stenographic reports and other matters that would come under their offer, about $150.

While your committee is satisfied that the arrangement would be advantageous to the Council and the profession, we fear the cost might be beyond what we might safely expend in that direction.

We beg to submit the following abstract of our assets and liabilities, viz.:

ASSETS.	
Building and site	$100,000 00
Assessment dues	4,500 00
Cash in Bank	371 47
	$104,871 47

LIABILITIES.	
Mortgage on Building	$60,000 00
Accounts passed	183 06
Note in Bank under discount	1,000 00
Estimated expenses of session for 1892	2,200 00
Balance	41,488 41
	$104,871 47

We have reason to think that upon the completion of the new city and county buildings the remaining offices and rooms unoccupied will be readily rented, and the income from this source may in future enable the Council to dispense with the annual assessment.

We advise that the detailed statement printed by order of the Council, showing a tabulated statement from 1866 to the present time, of the receipts and expenses of the Council, be sent to every registered practitioner in the Province for their information.

Your committee believe that if the same care and prudence which has chacterized the financial transactions of the Council hitherto, is shown in the future, that the financial outlook will be one of great promise.

We append to this report that of the Treasurer, also giving in detail the expenditure of the Council during the year.

All of which is respectfully submitted.

D. Leslie Philip,
Chairman Committee on Finance.

Gentlemen,—Your Treasurer herein submits a statement of the receipts and disbursements for the fiscal year just closed :

1891.	RECEIPTS.	
June 10.	—To balance as audited	$732 13
	Registration fees	3,347 00
	Assessment dues	5,124 22
	Fees for professional examination (April)	9,525 00
	Fines from illegal practitioners	1,251 40
	Building, rents from offices	4,097 34
	Council meeting, refund	1 20
	Temporary loans from bank	32,786 00
	Total	$56,864 29

DISBURSEMENTS.

Election expenses		$ 49 00
Council meeting expenses		2,243 50
Discipline committee		367 99
Legislation committee		317 30
Curriculum committee		287 45
Registrar's salary		1,800 00
Treasurer's salary		400 00
Prosecutor's salary		600 00
Professional examination expenses		2,289 54
Fees refunded candidates		110 00
Permanent apparatus for examinations		5 00
Fines to prosecutor		1,228 60
Registrar's office supplies and expenses		683 03
Treasurer's office supplies and expenses		29 55
Printing		610 00
Legal services prosecuting illegal practioners.		180 47
" collecting annual dues		319 34
" general account		155 62
New Building Maintenance:		
Caretaker Wasson	$520 00	
Elevator man	260 00	
Commission on rents	207 80	
Fuel	636 75	
Water	416 80	
Gas	171 57	
Insurance	72 50	
Taxes	1,738 03	
Repairs, supplies, etc.	414 62	
Legal services	71 96	
		$4,510 03
Interest		3,534 85
Temporary loans		36,771 55
Balance		371 46
Total		$56,864 29

I may say that at present we are indebted to the bank in sum of $1,000.

Respectfully submitted,

W. T. Aikins, *Treasurer.*

Dr. Philip moved, seconded by Dr. Bray, that the Council go into Committee of the Whole on this report. Carried.

Dr. Philip moved, seconded by Dr. Bray, that the report of the Finance Committe be received.

Dr. Fenwick in the chair. Report read clause by clause.

Dr. Thorburn during the reading of the report asked information as to the $50 for insurance on the elevator for the year. The Registrar stated that the insurance was not against injury to the elevator, but in the event of anybody being injured by it.

Dr. Moore, *re* the proposition of the Ontario Medical Journal Publishing Company, said, before that clause is put I beg leave to move that the words "$1500" be struck out, and the words $600 be inserted; and I recommend that this offer be accepted at that sum. I believe it is in the interests of the profession that we should have a journal reaching every member of the profession. I believe that it is the only way, the only true way, the only real way that we can reach our constituents. I believe if we had a journal of this nature it would be in the interests of the Council, and in the interests of the profession; and we would be able thereby to put our views fully and clearly before our constituents. If we had a journal of this kind, we could meet, and meet very satisfactorily, the charges made by some of the medical profession of this country against this Council. It is true now that we have no means whatever by which we can reach every member of the profession. We cannot reach them by the daily press. We cannot reach them by the medical journals now in existence, because the medical journals do not reach every medical man, because every medical man does not take those journals. But if this Council expends the sum of $600, and sends the medical journal free to every medical practitioner in this country, I certainly think they cannot complain of the little fee of $2, when they are getting a journal which, according to this prospectus, agrees and guarantees to be equal to any three dollar journal in the province. They will have a journal free for $2; they will be able to understand twelve times a year just what is going on in the medical profession; they will have access, according to the prospectus, to this journal at all times and under all circumstances, and it will be, as I understand it, the organ of the profession. I think it is probably the best $600 we could expend. Besides that, if I remember to have read correctly, they agree to do our printing; I think our printing costs us nearly the sum of $600 already, and if they do the printing, we are actually getting the journal for the profession almost for nothing. If the company accepts this proposition, I think it is a most generous offer upon their part. I don't know that they will accept it, but I will fix the sum at $600, because of the straightened circumstance of this Council; therefore I have much pleasure in moving that the words "$1500" be stricken out, and the words "$600" be inserted; and I recommend that offer to be then accepted.

Dr. Geikie—Might I ask anybody who knows, perhaps the chairman of the Finance Committee, whether their offer was not $1500? There is a great deal in what Dr. Moore says; but there is a great deal of difference between $600 and $1500. They say we will do so and so for $1500, while we say, you are very good, and we will give you $600. It seems so much below their offer as to be hardly worth considering.

Dr. Rosebrugh—Let us have a little more light on the question of printing. Is it stated they will do our printing? What do they mean by that? Do they mean the printing of our Announcement, or only any advertisements?

At the request of Dr. Williams, the Registrar reads the proposition of the Ontario Medical Journal Publishing Company as follows:

TORONTO, JUNE 10th, 1892.

To the President and Members of the Ontario Medical Council:

GENTLEMEN,—We believe it would be to the advantage of the Medical Profession throughout the Province, as well as the Council of the College of Physicians and Surgeons, that all transaction of business or otherwise of the College should be published and given to the general profession; that a full stenographic report of the proceedings of the Council should be placed in the hands of every practitioner; that a full report should be given of all territorial meetings, and we make for the *Ontario Medical Journal*, the first copy of which will be issued on or about the 1st of July, 1892, the following offer. The above company will, in consideration of a grant of $1,500 per annum from the Council, agree to do as follows, viz.:

1. Supply *Ontario Medical Journal* free to every registered medical practitioner in the Province, and, also, to every registered medical student attending college.

2. Will give a full stenographic report of all proceedings of the Ontario Medical Council, and furnish a bound Hansard copy of the proceedings of the Council to each member; report proceedings of all territorial meetings; publish all advertisements of the Council free; secure original articles from prominent members of the College on Council matters, and in every way publish a first-class journal, the columns of which shall at all times be open to the medical profession for the discussion of Council and other matters.

3. The grant to be made yearly at the discretion of the Council.

We remain,
Yours very truly,
THE "ONTARIO MEDICAL JOURNAL" PUB. CO. (LTD.),
Per W. BEATTIE NESBITT.

Dr. Ruttan—How often is the journal to be issued?

Dr. Bray—Monthly.

Dr. Campbell—I notice in the tabulated statement of expenditure of last year, that the Council paid over $600 for its printing. The great proportion of this was, no doubt, expended in printing an Announcement which contained the proceedings of the Council.

If by bonusing this proposed journal to the extent of $600, we get the printed report of our proceedings and our Announcement, and the publication of our advertisements, we certainly will be only expending a trifle, possibly $100 or so, for extra printing that we have to do, which would be the printing of letter heads and envelopes; and that is really all the printing I suppose we have, except the Register.

Dr. Geikie—The Company do not say they will print the Announcement.

Dr. Campbell—No. But I say if they are prepared to accept the proposition to print a report of our proceedings and our College Announcement and all the advertisements, and send a copy of the publication to every registered practitioner, it seems to me it would be a very small amount expended by this Council over and above what we do expend now. I do not know that this company would be willing to accept an offer of that kind. I am quite satisfied the Council cannot accept their proposition, for we are not in a position to bonus them to the extent of $1,500; but if they are willing to accept the proposition involved in Dr. Moore's motion, to do this work for $600, the Council will be expending but a mere trifle over and above what they expend now; and we will gain the other advantages of which Dr. Moore has spoken. My own impression is that it could be done, for the simple reason that a paper of that kind would draw a large revenue from advertisements; the fact that their journal would go to 2000 physicians in the Province of Ontario would give them a very extensive advertising patronage; from that they would draw quite a revenue; from subscriptions they would draw no revenue except what they might get outside of the Province, (of course they would get a few subscribers) but they would get very large revenues from advertising, because it would be the best advertising medium in the countty. I do not know anything about the promoters of the corporation, or what their notions of these things are, but so far as the proposition of Dr. Moore is concerneed, it strikes me that there would be no harm in passing it; and if this company are willing to accept it I think the Council will be doing a very good thing.

Dr. Philip—Before a matter involving the expenditure of that amount of money is voted upon by the Council, I would wish to say that in the Finance Committee we simply took their proposition to submit it to the Council without recommending anything, but I think it would be well if we are going into a comparatively large undertaking of this kind to have somebody hold a conversation with the promoters, in order to understand exactly what they are going to do. What they state is a little indefinite. Once their duties are defined and they enter into a written agreement promising to do certain things with the Council, as Dr. Campbell has said, there are certain good features in connection with it which commend it to my mind; but I certainly would not like to undertake a grant of this nature, and to the extent of $600, without having their duties defined, not only by a circular of this kind, but in writing, so that they will be bound by contract to the Council to carry out what they promise to do.

Dr. Bergin—I beg to ask whether these gentlemen, or this company, propose to guarantee in any way that they will carry out the arrangement if it be made with the Council? Do they expect any portion of this money to be paid before the expiration of the year? Am I to understand from what you have read just now, it is to be paid at the discretion of the Council, means that as an evidence of good faith this $600 that they accept shall not be paid until the expiry of the year?

Dr. Bray moves that this portion of the report be laid over till that information can be got, till to-morrow morning.

Dr. Campbell—I don't think there is any necescity to refer it over, I will submit a resolution, which, perhaps, will meet Dr. Moore's ideas; it is to amend that clause by adding thereto "That in the event of the Ontario Medical Journal Publishing Company printing a stenographic report of the Council proceedings, the College Announcement and all the College advertisements, and supplying a copy of the Journal free to every registered practitioner, the Council will give the company a bonus of $600; the money to be paid in monthly instalments after the publication of each issue of the journal."

Of course it should be left with no executive committee to make a formal arrangement with the company, provided they accepted this offer, based on these terms.

Dr. Williams—I do not see any harm in passing this resolution to-night; It is a question whether they will accept it. If you say by that report, what you would be willing to do, then we would be in a position to have a conference with this company, and see whether or not they would be willing to accept what you propose; if they agree to that acceptance, then would be time to enter into details, and have some writing prepared to make the matter absolutely secure.

Passing a vote or resolution, or amendment to that report to-night will simply be an expression of opinion of the Council as to what they would be willing to do, and which could be afterwards completed, providing the company were willing to accept your offer.

Dr. Geikie—Might I suggest all other college printing, meaning the questions and the like.

Dr. Bergin—Their proposition says "Grant to be made yearly in the discretion of the Council."

Dr. Williams—I should suppose that it meant to be continued one, two, or three years

Dr. Campbell—I think if you did a thing of that kind it would be only fair to pay them the money monthly, after each issue of the journal; then if they break down our money would stop.

Dr. Rogers—I quite agree with what the chairman of the Finance Committee says that in view of all charges that have been levelled at this Council on the question of extravagance, we had better be a little slow in incurring new liabilities and expending money. I quite agree with all Dr. Campbell has said, if they could get an arrangement of that kind, it would be very good; but at the present moment I think we should keep from the appearance of being extravagent; and to endow a journal of this kind would be taken by our opponents as more evidence of the extravagance of the Council. I think it is putting another weapon in their hands for this year.

Dr. Johnston—One of the chief arguments brought by Dr. Meacham, and some of his followers at the Local House this last spring, was that there was no journal which was the mouthpiece of the Medical Council. It was upon that point that they distinguished the yearly liscense of the profession from the yearly liscence of hucksters; it was on that that they distinguished it from the yearly liscense that the lawyers receive. As they said, the lawyers receive with their yearly license, and for which they pay some $17, a journal; and that if this Medical Council had the journal for which they might reasonably be asked to pay a yearly fee, they would not object to pay that fee of $2; but that there was no journal, and that they were paying for nothing. I am sorry to say I know very little about this journal; I have no interest either financial or otherwise, in it; but I think if some arrangment of this kind could be carried out, this journal would be a medium through which the profession could all ventilate their views; and I think it would lead to the better understanding of the average country practitioner, of what the Council has being doing, and what efforts they are making from time to time to meet the wishes of the profession. I think that a great deal of this misunderstanding which has been spoken of before is the result simply, if not totally, of the fact that in the outlying districts of Ontario, the profession do not know what we do, or how we do it. It is with that object also, I hoped this year the stenographic report of this meeting would give them a better idea. I think if something of that kind was done, and now we have the means of doing it, there would be a general unity in the profession.

Dr. Bergin—They could not say this was a star chamber then.

Dr. Thorburn—We should be very careful before taking a venture of this kind. If we do this the present journals would become inimical to us.

Dr. Johnston—They are now.

Dr. Thornburn—They do not give us that attention that they might; and there is something to be said in favor of it in that the British Medical Association have their medical journal; it is the authorized journal of the association. We might in the future consider this matter, but with the present feeling of the profession that we are an extravagant body, we should go slow. Then, too, there is nothing definite in this proposition; before anything could be passed I think we should have a positive declaration from this company, explaining what they will do, and what they will not do. I think Dr. Geikie's suggestion about the printed questions is a very important one, for students; and we ought to know positively from them what they propose doing, and we should have a written agreement before we can vote any sum of money for it.

The chairman, Dr. Fenwick—I myself, think $600 is a very small amount; and I think these questions for examinations should not be printed in a public printing establishment, because the students might get hold of them.

Dr. Henry—I support the remarks and motion of Dr. Moore, to give $600 to the journal. Owing to the intense feeling that exists between the Council and the profession in the country, I think it would be very well spent money; the profession will only be getting a portion of their money back when they get their journal; and I do not see that any medical man or number of medical men would object to it.

Dr. Campbell's amendment was put by the chairman and declared carried.

Dr. Phillip—Referring to the clause *re* the position of prosecutor for the Council said, Mr. Webb, during the last year, at any rate, received from the College a salary of $600, and also the fines and convictions. These fines amounted last year, to about $1,200, but the expenses were very nearly equal to the convictions and fines, and Mr. Webb made a request towards the latter part of May, for an increase of salary, saying that if we did not increase his salary we should have to look somewhere else for someone to fill the position, or something to that effect. We feel that as the years go by these prosecutions are gradually ceasing; they are becoming far less frequent than they were in the past; and we think they are likely to be still less in the future; so that it struck the members of the committee, that if they could find some good man who would do the work with a lesser salary, and who probably might employ some portion of his time, not occupied in prosecution, at some other work, that this additional expense might be saved to the Council and the work might be done as well as it has been done, during the last year at any rate. If we could find such a man in Toronto, who would be under the call of the members of the Medical Council, outside of Toronto or anywhere it might be found necessary to call him, it would be serving a very good purpose. We propose not to give him as large a salary as Mr. Webb had; I do not know that I could name any salary just now; it was mentioned among some members of the Council, that we might get a man for $400.

Dr. Bergin—I think that would be a very wholesome change.

Dr. Henry—My experience is, it is frequently very difficult to get the prosecutor to look after the cases at a distance; I have felt, not only now, but in the past, that the country the prosecutor had to cover was too great; and we ought to have four men to cover it. If you get a man in the city and give him $400, it would be impossible for him to live on that, and attend to the duties required over the territory. I think if we are going to change the mode of prosecuting delinquents through the Province it would be better to go back to the old state of affairs and let every territory have two or three first-class constables to look after them. I must confess here, that the late prosecutor has done good work; he has chased all the delinquents out of my territory; but I think the work is really too much for one man to do in the first place; and to my mind it is preposterous to think you can get a man to do it for $400 a year.

Dr. Bray—In reply to what Dr. Henry has said about having two or three men in each county, I wish to say that we tried that. I don't know that we had two or three, but we had men; and it was perfectly useless. And, further, if you have four prosecutors I don't know where you are going to get the money to pay them.

Dr. Henry—They pay themselves.

Dr. Bray—If you get four good men to take it for what they get, I am perfectly willing they should have it, but I would want them to give some guarantee that they would do the work efficiently. There is not enough work to pay the men. The late prosecutor complains that he did not get enough, and as the Registrar informs us, the receipts from fines are $1,200; and if the total receipts from fines for a man who is giving his whole attention to it, is only $1,200, how can you expect to have three or four men and give them no more than that? I quite agree with the recommendation of the Finance Committee; and I think there will be no difficulty at all in getting a man who will attend to that duty just as well, perhaps, as it has been attended to, and for a great deal less money.

Dr. Williams—There is a slight mistake, I think, in stating the amount received by the prosecutor for this last year from fines. Part of that $1,200 to which you refer, was back payments from previous years; really the receipts from this last year were something about $900, or $950; and, according to Mr. Webb's statement, it required all that amount to pay travelling expenses and other expenses which he had to pay; and all that he had left was the salary that the Council granted him direct, say $600. The proposition, as I understood it, made by the chairman of the committee, is, that if a prosecutor could be got in a central position, who could occupy a part of his time at something else, and only go out when he was required for certain purposes, and when that purpose could be intimated to him, on communication from the Registrar, or whatever way the members of the Council might see fit, he could do his work in such a way that his expenses would be met by what was made out of the fines, and the amount granted him by the Council, whatever that might be, would be his compensation for the time that he devoted to the work. That seems a reasonable proposition, and a person in that way could certainly do it for less money than one who had to give his entire time to it. I have no doubt the members of the Council would be very sorry to part with the prosecutor they had before, perhaps, as it was stated by a number of gentlemen that he did his work efficiently in their division; but he claims that he cannot do the work for the amount that he was given, and that he requires an increase; and the Council are not in a position to make that increase; therefore, the Council seem obliged to adopt some other course by which they will be still protected to the same extent, or have their prosecutions carried on, and yet they will not be burdened to any larger extent than they were before, however sorry they might be to part with Mr. Webb.

Dr. Miller—Does the college not sometimes have to pay the costs in cases in which the prosecution fails?

The Registrar—The rule has been, where prosecution failed, and where there was an appeal, the Council would have to fight the appeal, and would have the costs to pay if the conviction was not sustained. There is included in the expenditure for that the sum of $20. The Council was obliged to pay that.

Dr. Rogers—This is an important matter to the territorial representatives. We have a territory, and when men come in there that are not registered, it creates quite a disturbance among our constituents. If you could possibly get for a prosecutor a man who had many of the good qualities of our present prosecutor, and without some of his faults, at the rate of $600 a year, and he got all the fines, then all the money the College has to pay is $600, plus a few dollars they had to pay on appeals last year. I would like to move, if we get a prosecutor, that we could recommend, to employ him at the same rate; you will not get prosecutions by having a man who would be following some other employment; he won't leave his employment; the territory is too large, and he won't have enough to do.

Dr. Philip—In making this recommendation from the Finance Committee to the Council, I would say we have in our mind's eye a man who probably would fill the bill; the man I refer to is the one who takes care of this building; he has a most excellent record, and though he did not name any specific sum, we were satisfied he would undertake to do the work for one year at least, for less than $600. He is a man who has something else to do here. Speaking of his qualifications, he has been in the Pinkerton detective force; he has got letters from several other bureaus and departments, showing he is a skilled man in that kind of work. As Mr. Webb had decided, according to the statement he made us, that he would not take it unless we increased his salary this year, we had a conversation before coming into this Council to-night; Mr. Wasson wanted a little more time to think it over; still I am satisfied myself he would accept it. And I feel quite confident he would make a very good man for us; he is here at headquarters all the time. I didn't know we could get a man in the position I spoke of at the time we were considering our report. Our detective or prosecutor would be subject to the call of the Medical Council.

The old plan of appointing local constables is no good, it has never worked satisfactorily at all; but I am satisfied if we had Mr. Wasson, or a man like him, here at headquarters with the Registrar, at all times subject to the call of the members in the territorial divisions, he would be able to go to any part of the territorial divisions, and could have local agents at different points, who would put him on the track of such cases as might be necessary for him to prosecute.

On motion of Dr. Rosebrugh the committee now arose, and the chairman reported that the Finance Committee's report had been passed as amended.

Dr. Thorburn moved, seconded by Dr. Bray, that the report be adopted. Carried.

On consent of the Council, Dr. Bray gave notice of motion *re* the appointment of a public prosecutor on the lines recommended by the Finance Committee.

Moved by Dr. Harris, seconded by Dr. Philip, that leave be now granted to introduce a by-law for levying an annual assessment, and that the by-law be read a first time. Carried.

Moved by Dr. Harris, seconded by Dr. Moore, that the by-law be referred to the Committee of the Whole, and read a second time. Carried.

Dr. Fulton in the chair.

Adopted in Committee of the Whole without amendment.

Moved by Dr. Day, seconded by Dr. Philip, that the report of the Committee of the Whole be adopted. Carried.

Moved by Dr. Harris, seconded by Dr. Day, that by-law No. for levying the annual assessment be now read a third time, passed, numbered and signed by the President, and sealed with the seal of the college. Carried.

Dr. Moore here arose to a question of privilege, and said, I find here in one of the evening papers published in this city; called "The Toronto Evening News," what purports to be a report of the proceedings of this Council, which is most totally incorrect in every particular. I find it headed, "A Close Corporation"; it states, "in a year from now, Dr. McCully, of Toronto, and Dr. Anderson, of Hamilton, may not be qualified to practice as physicians." Dr. Anderson, of Hamilton, as I understand from members of this Council, has not been prosecuted at all; and in justice to Dr. Anderson, I think we have a right to do something regarding it. In this article it goes further and says, that "Dr. McCully and Dr. Anderson, who is also accused of unprofessional advertising, be struck off the list of physicians. The matter will come up at the next meeting of the Council in June, 1893." It further goes on and states, "That over clause one of the report, there were some very hot words in discussion. Dr. Moore moved to strike out the prescribed course of science in the curriculum. Dr. Bergin said the curriculum had been changed every year, and that another change this year would make it a laughing stock in the community. He said there was an undercurrent through the Council to lower the standard, and accused Dr. Moore of behind back work, which the doctor resented strongly, but finally agreed to change his motion to suit the ideas of Dr. Bergin."

You know that this is incorrect. I think I can say for Dr. Bergin that he did not use those terms; and I might also say that I did not alter my motion to suit the views of Dr. Bergin, because Dr. Bergin voted against it, and was not satisfied with it. I altered my views, or exchanged my views, perhaps, believing it to be in the best interests of medical education, and not to suit Dr. Bergin's views at all. I think it is very disgraceful, indeed, to think that young men can come here who have either so little honesty or so little manhood that they will take down reports most grossly incorrect and circulate them in the public press. This article will be copied into and sent to the papers in Belleville, Kingston, Brockville, Cornwall, and all along the line; it will be found on Dr. Bergin's table and on my table to-morrow morning; and I think this young man is not only a disgrace to the position of reporter but he is a disgrace to journalism, and I think, in all fairness to this Council and to the gentlemen named, that this paper should retract at the very earliest opportunity those erroneous statements.

Dr. Bergin—I do not attach very much importance to this sort of thing myself; but I do not for one moment believe there is an undercurrent in the Council; on the contrary, I believe it is a feeling of the Council generally that the matriculation should be increased, and I know that some gentlemen who opposed our standard last year, believe now we ought to increase it, at all events, before the end of this Council, to a much higher degree than they would have increased it last year; and as for Dr. Moore doing behind back work, I made no such statement—and I don't believe it.

Dr. Philip asks to have read the statement made by the Registrar called for by a motion of a member of the Council.

Dr. Pyne reads the following statement:

Item No. 1.	Site	$13,000 00
	New building	75,046 54
	Total	$88,046 54
	Less material in old building	100 00
	Cost up to June 14th, 1892	$88,145 54
Item No. 2.	Paid on building and site up to June 14th, 1892	$28,146 54
Item No. 3.	Mortgage principal	$60,000 00
	Interest since 1st May, 1892, to 14th June, 1892	375 00
		$60,375 00
Item No. 4.	Rent for 1888-89	$ 1,853 45
	" " 1889-90	3,888 91
	" " 1890-91	4,090 72
	" " 1891-92	4,097 34
Item No. 5.	Estimated amount of revenue if all offices were rented	$ 7,150 00

"A. G. P."

(*To be continued.*)

Selected Articles.

PUERPERAL FEVER AND ITS TREATMENT.

This patient is twenty-five years old and has been married eight years. She has two children, the last one born six weeks ago, but has had no miscarriage. Since the birth of her last child she has been troubled with pains in the back and on the right side together with headache and fever.

This woman was delivered by a foreign midwife. A great many of the women who come to this clinic have trouble from the same source. This case gives me an opportunity to say a few words on the subject of puerperal fever.

First, as to the prevention of puerperal fever, the first important consideration for a doctor is to have a nurse under his own personal control.

Some time before delivery I procure certain articles that I need, and the most necessary one is a solution of bichloride of mercury and tartaric acid after the following formula:

℞—Hydrargyri bichloridi . . . ʒ ij.
Acidi Tartarici . . . . . ʒ x.
Aquæ . . . . ℥ viii.

M. & S. A teaspoonful of this mixture contains two grains of bichloride of mercury and the addition of the tartaric acid renders it soluble. Then I provide iodoform and carbolic acid, and a needle and thread.

The nurse is instructed to wash the vulva of the patient with this solution and to see that the bowels are regularly moved. I make it a rule to never examine a patient without first washing the hands in a mixture of equal parts of alcohol and tincture of green soap, and next dipping them in a solution of bichloride of the strength of 1-4000. After delivery of the woman, which process I attend to myself, if the instruments or the hands have been introduced into the vagina, the uterus and vagina are washed out carefully and the nurse instructed to keep the vulva clean. The most practical method of doing that is never to use a sponge, because a sponge once infected cannot be again cleansed. I instruct her to throw, by means of a clean rubber bulb syringe, the bichloride solution into the vagina several times a day, and place gauze over the vulva, the gauze having first been squeezed out in a solution of bichloride and dried. Then if there is any odor to the discharges vaginal douches are given of bichloride solutions and afterwards 1-100 carbolic acid solution till the odor has gone. If the patient has a rise of temperature and chill the nurse is instructed to use the bichloride solution every hour in washing out the vagina. If the temperature does not fall to normal, then I wash out the uterus with a weak solution of bichloride or with a carbolic solution of the strength of 1-100 or 1-60. In washing the uterus out, I do not use a stiff glass tube, but a stiff gum catheter, No. 12, and I generally carry it up to the fundus. The connections are then made and the syringe pumped very gradually until the current passes down the vagina and out the vulva. It generally takes from fifteen to twenty minutes to clean out the uterus, and I use about a gallon of water. In a bad case of puerperal fever the first washing induces another chill and another rise of temperature. If you follow the instructions of the text books you will find that they advise the washing to be done but once in eight hours. I have proved to my own satisfaction the fallacy of this advice. The germs are not destroyed by the first nor the second washing, and they develop again in eight hours, so your washing is practically futile. I have learned from experience the value of frequent washing out of the uterus in cases of puerperal fever.

The late Dr. J. Marion Sims once attended a patient who developed puerperal fever suddenly at a hotel in this city. She was seized with a hæmorrhage one morning and was carried up stairs flooding and in pain. Dr. Sims tamponed her after the orthodox fashion, but it did not stop the hæmorrhage. She was curetted the next day and the bleeding was so profuse that the tampon was again inserted. I objected to this procedure because both tamponings were followed by a chill and fever which the second time rose to 105° F. We had now a full fledged case of puerperal fever.

I then began washing out the uterus every three hours and remained with the patient till she was cured, and she is living to-day in perfect health. The mistake I made was in not washing out the uterus every hour. I once washed out the uterus of a patient who had puerperal fever every hour for twenty-four hours and at the end of that time the patient recovered. The next patient I had got well in twelve hours. When I went to Bellevue Hospital as visiting gynæcologist some years ago, the death rate of patients suffering from puerperal sepsis was four out of five cases. Nine patients with puerperal fever happened to be there, in all whom the fever had been present for twenty hours. I washed out most of these cases myself and succeeded in curing seven out of the nine. Since that time the house staff of Bellevue Hospital have adopted this method, and four out of five cases are now cured instead of four out of five dying as formerly.

One mistake I wish to call your attention to, which you are very apt to make in washing out the uterus in a case of puerperal fever, and that is, in the use of a stiff double catheter and failure to pass it to the fundus. If you ask some teachers what is the larger cavity two or three days after the uterus has contracted, the cervix or the fundus, you will be told that the latter is the larger. It is of great importance to remember this, as it is a frequent source of trouble. I will relate a case to illustrate this :

About three months ago I was called upon by a doctor to attend a relation of his who was quite sick. This woman had had a baby about ten days previous to his visit. She did very well the first week of confinement, but at the end of this time she experienced chilly sensations and a rise of temperature of 102° F. or 103° F., with some sore throat and an abscess developing in the tonsils. The doctor opened the abscess, taking it for granted that the fever was due to the throat trouble. The next morning she had a chill and a temperature of 104° F. or 105° F. The patient was attacked by one chill after another till the fourth or fifth day after the first chill when she was considered in a hopeless condition. When the doctor called on me and stated these facts I told him it was rather late, but I would go up and see what could be done. I called at 10 o'clock at night and made an examination of the patient. I found no positive signs of peritonitis, but gave it as my opinion that the woman had something in the pelvic cavity of a septic nature, and that unless this septic material was found and removed she would not live. I put the patient on a table, and examined her uterus, when, to my surprise, I found it measured eight or nine inches. I said if this uterus is not large enough to hold sepsis I do not know what is. I did not operate, but washed out the uterus and left one of my assistants with instructions to continue the washing every hour. I removed considerable material from the cavity of the organ. Shortly afterwards the patient had a violent chill with a rise of temperature to 105° F., but that did not discourage me in the least. For six hours the uterus was washed out with a 1-100 carbolic acid solution and at the end of that time the temperature had fallen to the normal and the woman got well.

I believe now, and I say it with perfect sincerity, that nine cases out of ten cases of puerperal fever that I am called upon to treat in from twelve to twenty-four hours after the onset of the attack I will cure by simply regulating the bowels and washing out the uterus systematically and thoroughly, as I have pointed out to you. Within this period of time the septic material is confined to the uterus, vagina or cervix in a place easy to attack it and has not yet entered the connective tissue, veins or lymphatics. If I am called to wash out the uterus in a case of puerperal fever, and within six hours or so the temperature does not fall to normal, I then make up my mind that the poison has entered the connective tissue, veins or lymphatics, and in that event I open the abdomen and generally find an abscess present. I have done this in a case of well marked phlebitis or milk leg with success, which some of the most eminent men in town pronounced absolutely hopeless. I believe now that there are a great many cases of milk leg where suppuration takes place that ought to be operated upon, and yet I do not open the belly every time as some suppose.—W. Gill Wylie, M.D., in *Inter. Jour. of Surg.*

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THE METSCHNIKOVIAN THEORY OF VITAL RESISTANCE.

There is a large and marvellously interesting class of phenomena associated with the history and sequelæ of certain of the acute zymotic diseases characterized as immunity, which has long been recognized as the possible source of a potent ally to preventative medicine providing that its subtle nature and mechanism should ever become understood sufficiently to render it susceptible of imitation and employment for the arrest and anticipation of infectious disease. The advent of vaccination as a prophylactic in small-pox was the first actual realization of what lay concealed in this direction, and its discovery gave a new importance and significance to what had hitherto been mere conjecture and speculation. Notwithstanding this fact, however, and that this great adjuvant has been usefully employed for a number of years, its underlying and mysterious principles have remained quite isolated and signally barren of generalized results applicable to other disorders of analogous characters. These failures to discover and apply the *mode* of vaccination have not, however, deterred the ambitious, nor caused the speculative mind to entirely relinquish the hope of its ultimate success; but, on the contrary, the spirit of inquiry and experiment has been more of less active all along, and is just now more vigorous than ever before. That the subtle and obscure conditions associated with and constituting the cause of immunity or vital resistance will finally be detected and opened up as a generalized auxiliary to medical art, is the ambition of many and the hope of all.

In an article with the dimensions of the present one, it is quite impossible to enumerate and discuss the several and various kinds of immunity known to exist both as natural and acquired conditions of certain organisms in relation to certain diseases, and we shall have to limit the observations to that of the acquired form alone, which experiences show to be the result of two classes of agencies or influences; namely, immunity from a natural and immunity from an artificial attack of disease. It may be stated that it is now very generally believed that the agencies of immunity, the *vis medicatrix naturæ*, and the factors of vital resistance are one and the same, and that the special functional activities of the body-cells are the chief or sole agents in the arrest, cure, and prevention of germ disease. It is from this conception and rôle of the cells that this paper is undertaken, and its purpose will be to search out and ascertain the nature and influence of these agents and agencies, and, in so far as is possible, to assign to each its separate value and importance in the origin, manifestation, and sequelæ of infectious disease. In all sciences where the processes are imperfectly observed the theory of the process (which is a systematic survey of all the facts of the case marshalled in the order of their casual dependence) is supplemented by an hypothesis which bridges over with a guess the gap left by observation. Immunity, like a number of kindred occult subjects, has had a vast number of hypotheses and speculations to explain it, though none of these have as yet evidenced the *sine qua non* of reconciling observation with calculation to that degree which would warrant their acceptance as the true and legitimate theory of immunity. Unfortunately for medicine, in a large proportion of the explanations advanced in connection with it-dark problems of disease we can never, from the nature of the subject matter, approach nearer to a solution than what mathematicians call "a first approximation." It is through such successive approximations that all science advances ; yet in the instance of a diseased organism these must ever remain somewhat of a mystery, and we can never pass to the final stages of the How and the Why.

Among the theories advanced, there is one which has recently gained considerable prominence, which may be provisionally regarded as the correct one, both from the number of facts which it explains, and also from the manner in which it has withstood the tests of experiment and criticism, though its claims are stoutly opposed in some directions. This theory, as originally propounded by its author, Metschnikoff, undertook to ascribe the chief phenomena of immunity, both natural and acquired, to the functional or vital actions of the body-cells, though, as now modified by its expounders, it concedes the ancillary office of other agencies, though of a subsidiary character.

Before proceeding to a detailed consideration of this theory, it is necessary, to a clear comprehension of the issues involved, that we take a brief survey of the salient features in the genesis and life-history of the body-cells. Biology teaches that the cell is the basic element of all life. As a primitive part, it may be either an organism or an element in an organism. That it may lead an isolated life, as plant or animal, or it may become united with other cells and lead a more or less corporate existence ; but always, even as an element of a higher organism, it preserves and retains its own individuality as a cell. At first we see that the corporate union is very slight, merely the contact of one cell with another of its own kind—as the filament of a conferva. Rising higher, we see the cell united with others different from it. Plants and animals appear, having structures composed of various cells. Rising still higher, we see animal forms of which the web is woven out of myriads and myriads of cells, with various cell products, processes, fibres, and tubes. Viewed in this manner, the cell is seen to be the elementary factor of life, and the complex organism is but an aggregation of these elements, though this association is not a complete subordination of living parts, but each and all are mutual and co-ordinate, and there exists an interdependence of parts in so far as every part is dependent upon every other part. Each is, so to speak, a condition of existence for every other part, and the unity of the organism is but the expression of its solidarity. This is true, insomuch that, whenever organized substances become differentiated into morphological elements—such as cells—each of these has its own evolution, separate and distinct, and is born, lives, and dies an individual. Hence, whether as an element or as an organism, associated or differentiated, the cell possesses and retains its own individuality, and lives as a separate creature. The vital or functional activity of the cell is a threefold kind. It is directed in part towards its self-preservation, self-propagation, and the altering of outward relations. Virchow distinguishes these severally as the nutritive, formative, and functional activities. Many of these functions of the cells cannot be seen, and are only known through their effects. Others, again, like motion, growth, multiplication, ingestion, and alterations in form, can be directly observed under the microscope. Every cell, whether isolated or joined with others, is influenced by the nature of its environment. This may assist or antagonize its vital functions. They may disturb to a degree amounting to a complete arrest of all the signs of cell-life, or they may accelerate them all to the highest point of activity. Let the temperature be raised, a noxious substance be present, or an enemy to cell-life approach, and there is at once a corresponding change in the behavior of the cell. The cell is autonomous in itself, and yet it is subject to its conditions of external existence. To pass further into details : All microscopists are familiar with the spectacle of a formless lump of albuminous matter (a Rhizopod) putting forth a process of its body as a temporary arm or leg, or else slowly wrapping itself around a microscopic plant or morsel of food-substance, thus converting its whole body into a mouth and stomach. These phenomena are, however, surpassed by another monad, which fastens itself to a plant and sucks the chlorophyll first from one cell and then from another, while a second monad, unable to make a hole in the cell-wall of the plant, comes along and thrusts long processes of its body into the openings already made, and drags out the remains of the chlorophyll left by its predecessors. And still another, a third monad, comes, leading a predatory life, and falls upon those who have filled themselves with food, and takes it away from them. It is here that we stand at the threshold of that dark region where animal will begins, though we are, as yet, in the presence of the lowest forms of life known to science. It is in this direction concerning the facts in the genesis, morphology, and physiology of the cell, as interpreted by the laws of development and heredity, that science looks for a solution of those questions which have hitherto baffled all efforts. To understand and to estimate their several values, and their import as factors in the conditions of immunity, is to solve the mystery and to invoke their allegiance to the medical art.

It has long been known that inert particles of matter, such as pieces of bone, sponge, animal ligatures, and the like, when introduced into the blood and tissues of an animal, would become speedily dissolved, taken up and destroyed by the cells. The significance of these facts was first pointed out by Hæckel, who compared this process of the cells to that occurring in unicellular organisms by which they took in digested, and lived upon lower forms of life which surrounded them. He concluded that the cells of a complex organism nourished themselves by this same means, and that they took up and digested foreign substances in the same manner as the primitive cells. In other words, he theorized that the nutritive function was the same in both, and that the lower forms were sustained through the power of attacking and devouring other microörganisms, while the higher or complex cells used this power to destroy and remove foreign substances. Carl Rosser extended these observations by the means of experiments, and demonstrated that the amœboid cells of the animal body did really possess this power of taking up and destroying living micro-organisms; and, as a result of this, he drew the inference that the complex organism as a whole was protected against the invasions of pathogenic micro-organisms by this function of taking up and destroying—*phagocytosis*—and that in its absence or imperfection an animal became susceptible. At this stage of the subject Metschnikoff took it up and followed the conclusions of Hæckel. He maintained with him that the power of attack as witnessed in the primitive or predatory cell had never completely declined through the ascending stages consequent upon development, but that it had remained all along, though in a latent form, since the altered conditions in its media by which the necessary pabulum for sustenance was furnished without effort upon its part, and there was no demand for this power of attacking micro-organisms.

In substantiation of these views he proceeded to demonstrate that the latent or potential power of successful attack could be made patent and reinstated by suitable circumstances or exigencies rendering its operation necessary. To illustrate this he employed by means of inoculations attenuated viruses, which, through their mild, gradual, and stimulating influences upon the functions of the cells, caused them eventually to reassert their former or primitive instincts or powers of attack, and overcame and destroyed micro-organisms, which at first destroyed them. In this way he argued that the predatory function could be made to exercise itself in all its old vigor, and that by a series of gradually increasing dosage of quantity and quality the cells were drawn out, acclimated, and made superior to the micro organisms. It was from these facts in the history of the cell's life and experiments given that he formulated and advanced the theory that immunity was vital resistance whose processes were phagocytosis; that, when an organism was susceptible and invaded by pathogenic micro-organisms, it was due to an absence or imperfection of this function of the cells; and when, on the other hand, an organism was refractory or exempt, it was because the cells attacked and successfully destroyed them in the beginning. This very plausible explanation, as drawn from these data, is, however, denied, and it is disputed that the cells possess and exercise this function as a means of defence in a complex organism.

Prominent among these opponents stand Klein, who, by experiments with the bacilli of tuberculosis, has shown that the cells in taking up the micro-organisms are themselves destroyed, and, instead of being a means of protection, it is really the reverse process of destruction. On the other hand, a number of experimenters, such as Metschnikoff, Sutton, Ruffer, and Walker, have demonstrated that the cells will take in and destroy as many as fifty living anthrax bacilli, and still continue to live and thrive. In supplement of both of these apparently discrepant observations, Roux has shown that this process of taking in and digesting micro organisms—phagocytosis—is never an absolute one, but always a relative process, capable of being modified, increased or decreased by a large number of internal and external conditions and influences affecting the body-cells; that it is always and invariably present and operative in direct ratio to the non-susceptibility of any particular organism, and that it is only complete in all its details in those perfectly refractory, while in the susceptible ones it is partial, incomplete, or even entirely absent or unavailing. Hence, it cannot be denied but that in some instances the cells are destroyed, while in others they are the destroyers. Indeed, this is true in so far that in every acute and immunizing invasion of disease there are numbers of cells destroyed. On the other hand, if the organism be the superior antagonist from the very first, the micro-organism fails to gain admission, and the disease is prevented. In the first of these instances, where the micro-organisms enter and destroy the cells for a time, how is it possible for the latter to ever gain the ascendency over the germs, and to cast them out, as we know they do? What is the nature of those influences and conditions by which these are effected? The theory of acclimation or toleration cannot be tenable in the case of a cell that is dead, since, as such, it has really ceased to be a part of the vital economy. *The death of the cell furnishes the key to the entire situation*, though its recognition, as such, has long been overlooked and misinterpreted. The influence and rôle of fever as a vital and conservative reaction of the organism has been long misunderstood. The discovery and employment of its principle are the most important advance which has ever been made in connection with the mechanism and rationale of vital resistance. The death or destruction of the cells does not terminate its influence upon the organism, as has been thought; but, on the contrary, in itself becomes the source and means by which changes of the first importance to the organism are originated. The death of the cell liberates its constituents or tissue extracts in the form of substances denominated variously as tis sub fibrinogen (Wooldridge); nuclein (Horbaczewski); alexin (Hankin); tuberculocidin (Klebs); and elixir-of-life (Brown-Séquard) All of these, under varying degrees of chemical purity, depending upon the processes by which they are produced, are considered to be the same or analogous substances whose several effects upon the organism are the production of intense cellular actions in the form of chemotaxis, proliferation, fibrosis, and phagocytosis.—J. Wellington Byers, M.D., in *Climatologist.*

(To be Continued.)

THE INDICATIONS OF THORACOCENTESIS.

The author disputes Verneuil's assertion that thoracocentesis converts a serous into a purulent exudation. He concedes that operations for empyema are more frequent now than in the past, but does not hold thoracocentesis responsible for this and does not regard empyema as a more common disease than formerly. Thoracocentesis opens to view many purulent exudations, which formerly ran their course unnoticed, but it never produces them, if properly performed

Four factors must be considered in the performance of thoracocentesis: First, the presence of functional disturbances. Second, the quantity of exuded fluid. Third, the duration of the exudation. Fourth, the nature of the fluid.

Functional Disturbances.—Considerable dyspnœa is an indication for thoracocentesis, because it usually points to the existence of a large quantity of fluid. It may, however, be due to other causes, such as capillary bronchitis, miliary tuberculosis, etc. In such cases the performance of thoracocentesis must hinge upon the question whether the dyspnœa is due to the exudation or the accompanying complications. Dyspnœa, moreover, is an unreliable symptom; it may be completely absent; even when the quantity of fluid is excessive. The same applies to cyanosis. As regards the tendency to syncope, still less reliance can be placed upon this symptom, because it frequently appears too late to serve as a danger signal. In general, functional disturbances are unreliable signs; but when they occur in a case where positive indications for operative interference exist, they should impel us to make haste. Finally, in exceptional cases, if a careful study of the existing conditions shows that the disturbances are actually the result of the exudation, they may serve as indications for thoracocentesis, even if for other reasons the operation had not been attempted.

Quantity of Fluid.—A profuse accumulation of fluid demands thoracocentesis for two reasons: first, because the danger of syncope or asphyxia in general is in direct relation to the quantity of fluid; second, because the long time required for absorption to take place increases the danger.

The quantity of fluid can be estimated in a general way by determining its upper limit. This, however, is not sufficient; we must also determine the lower border of the diaphragm, the distension of the thoracic walls, the displacement of the mediastinum, and the compression of the lung. As long as the fluid does not reach to the level of the clavicles, the quantity of exudation need not enter into the question of an operation.

If, notwithstanding that the level of the fluid extends to the clavicle, there is no displacement of the diaphragm or mediastinum, no marked distention of the chest, and the lung occupies a considerable space in the thoracic cavity, the operation may be postponed. If, however, the lung is entirely compressed, especially when the thoracic cavity is distended, an immediate operation is indicated.

The Age of the Fluid may become an indication for thoracocentesis, even when the quantity of exudation in the pleura is moderate or slight. The exudation re-accumulates after evacuation if it is recent; on the other hand, late operations is sometimes attended with serious dangers.

The fluid should therefore be removed if no hope exists that it may be absorbed by medicinal treatment. Authors who have written upon this subject, have designated three weeks as the limit. It is a matter of difficulty, however, to positively determine the age of an exudation, inasmuch as the development of the effusion does not always correspond with the beginning of the disease.

The Nature of the Fluid can be determined with certainty by puncture. Without resort to this we deal only with presumptions, but these are sufficient to indicate a puncture, which according to the case may be simply exploratory, or at the same time serve to evacuate the fluid.

After thoracocentesis has been decided upon, it must be determined to what extent the contents of the pleural cavity are to be evacuated. In the majority of cases the complete emptying of the pleural cavity is attended with many grave dangers. On the other hand, the evacuation of a small amount of fluid may be useless if a large exudation be present. As a rule about one-half of the fluid should be removed.

Potain concludes as follows:

1. Thoracocentesis, if performed properly and at the right time, never converts a serous into a purulent exudation.
2. The increase of cases of purulent pleurisy which has been attributed to thoracocentesis, is rather an apparent than an actual fact.
3. The indications may be based upon precise and fixed rules.
4. Thoracocentesis should always be considered as a serious procedure, which should be performed under the necessary precautions.
5. It is as great an error not to resort to the operation as it is to perform it uselessly or improperly.—*Revue de thérap. méd. Chirurg.*

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Albinism in Mines.—It has long been known that animals living for generations in dark places lose the color which is produced by exposure to the rays of the sun and assume the character of the so-called albino. It has, however, been supposed that the actual change into complete albinism is the result of generations of life in caverns, valleys, and other spots from which the sun's rays have been cut off, and that by gradual change, extending from one generation to another, the races of the albino type have been developed. According to a series of observations recorded in the *Scientific American*, this hypothesis must be given up, or at all events much modified. From the facts discovered during some mining operations along the famous "blue lead" near to Bangor, California, it appears that in this range of mines there was recently reopened a mine that had once been worked under the name of "the old Potter Mine" (now called after its owner, the Bishop Mine, but had been closed for thirty years. A young explorer entered a dry slope leading to a second shaft, the existence of which was unknown owing to a thick growth of brush and trees about it. In the darkness he was surprised to hear a noise arising from a number of flies that were buzzing around him. One of these he caught, and on examining it by the aid of his lantern, he was astonished to find that it was of pure white color, although its eyes were red. Soon afterwards he heard what was unmistakably the sound of a rattle-snake, and directing his light towards the place whence the sound proceeded he saw the snake so clearly that he was able to strike it down by throwing at it a portion of rock, and afterwards to kill it by crushing it with other portions of the same material. On taking this animal into the light it proved, like the flies, to be of the purest white. Professor Harlow Ballard, of Buffalo, who was at the time near the mines making mineral explorations, procured the body of the snake and also several specimens of the "white flies." Within a week, under the influence of sunlight, the flies assumed the natural dark color of the common house fly. The mine had originally been closed owing to flooding, but the water in it had subsided and air had been admitted, but no light. The flies, Professeor Ballard believes, were the changed offspring of common flies imprisoned when the mine was closed. The snake, he supposes, had been carried down by a water current and had remained in the darkness long enough to undergo the loss of color of its tissues which it so markedly exhibited. The observations above recorded open up the question whether we ought to consider the change of color in the flies and the snake as due to the same cause as that which produces the true albino. Buffon assumed that the primitive color of every living thing in nature was white, or, to speak more correctly, that every living thing in nature was primitively colorless, and that development of color was sequential to changes gradually induced by varieties of conditions to which things of life have been subjected in the course of ages. The after-suggestion of Blumenbach, that the peculiar color of the eyes of albinos is due to the absence of the plack pigment, exploded the hypothesis of Buffon, and afterwards led to the view generally accepted, that the white color of the skin is brought about by a similar cause and that the loss of coloring substance is induced by a gradual and hereditary process of change. In this last record the change in the snake seems to have been direct, while in the case of the flies there was the rapid development of dark color so soon as the influence of the sun was brought into play, as if the sun's ray had developed at once a pigmentary or coloring substance. The observations open up a new line of investigation for those who are devoted to the study of the influence of external forces on living structures and of adaptability to circumstances as part of the varied manifestations of vital phenomena that must be ever in progress in our universe.—*Lancet.*

Primary Tuberculous Ulcer of Tongue.—Jacob S., aged 24, single, stair-builder. Never had syphilis and never had any eruption upon the body. Nine months ago he noticed a small lesion upon the point of the tongue. It appeared as a small, hard lesion about the size of a pin-head, grayish in color, and was slightly painful when touched by food, etc. It commenced on the point of the tongue a little to the right of the median line, and later also another on the left of the median line. The two lesions gradually became larger and have never healed since their origin. The pain has never been marked at any time. At present this ulcer occupies the apex of the tongue, somewhat oval in shape, about three-quarters of an inch from above downward. The base is reddish in general appearance, like the floor of a granulating wound, having an irregular surface consisting of many pin-head or smaller reddish points, between which there is a grayish, yellow material consisting of pus corpuscles, serum and broken down tissue. It bleeds easily upon touching with a blunt instrument and is not hard, like an epithelioma. The margin is irregular, and the edges are perpendicular, except at one point to the right, where it is undermined. The tissue forming the margin is elevated, not very firm in consistence, not waxy in appearance, is reddish in color, about one-eighth of an inch in diameter and not very sharply limited. Outside of this somewhat limited elevated margin, the tongue is in an apparently normal condition, except to the right there are two pin-point whitish lesions—small ulcers—about one-tenth of an inch apart and one-eighth of an inch outside the ulcerated edge of the large ulcer. No enlarged glands about jaws. Six weeks ago he contracted a severe bronchitis which is now almost gone. At that time he weighed 180 pounds, the same as he weighed before the appearance of the ulcer, but at present weighs only 165 pounds. This weight he lost in six weeks and before that time he' felt perfectly well, having a good appetite, no cough and lost no flesh. At present he has a poor appetite, and a slight cough. Has broncho-vesicular breathing at left apex with some elevation of temperature and increased heart action. No rales. Has marked wavy breathing.

Dr. Elliot could corroborate the diagnosis in one of the cases. He had examined microscopically, a piece from the patient's tongue some weeks ago. He had found no bacilli, but the histological structures of the growth indicated in a typical manner tuberculosis.

Dr. Robinson has not found bacilli in the patient's sputum but out of forty sections he had found bacilli in a few. He believed the first case was a primary tuberculosis of the tongue, as the patient has remained in excellent health since the local trouble began nine months ago until the attack of bronchitis six weeks ago. Since the attack of bronchitis he has lost in weight and presents evidence of a beginning tuberculosis of the lungs. —Dr. Robinson, in *Journal of Cutaneous Diseases.*

Exploratory Trephining and Ligation of the Vertebral Artery.—Dr. J. B. Beaver and Dr. Mills reported a case which they regarded as of unusual character and probably unique. The patient was a boy aged eleven, who had, in December, 1889, commenced to complain of pain in the head and some stiffness of the neck. Other symptoms, which had developed slowly, were failing sight, spells of nausea, occasional attacks of violence or excitement, strabismus, staggering in walking (a little more to the left than to the right), a feeling of dizziness described as "going over," and shortness of breath. Before the operation double optic neuritis in an advanced stage was present. Hearing and taste were not impaired, there was no motor paralysis, nor was there disturbance of common sensibility. No nystagmus. Examination showed a pulsating tumor in the occipital region, slightly protruding through a small opening in the skull, to the left of the occipital protuberance. A distinct thrill seemed to be present. Three scars were noted on the posterior aspect of the head, one just above and to the right of the opening. The opening in the skull was enlarged so as to examine the supposed aneurism which appeared to be in the line of the lateral sinus, but when this was done the character of the swelling was too uncertain to warrant them to go farther. An exploring needle was introduced, the withdrawal of which caused bleeding which required long pressure to arrest. Later the left vertebral artery was ligated, but with no beneficial results. After the operation the pupil on the side corresponding to the cicatrix was contracted. The patient slowly grew weaker and died several months after the operation. Autopsy revealed a gelatinous mass which had occupied much of the fourth vertricle, reaching from or into the middle lobe of the cerebellum and both cerebellar hemispheres. The ventricles of the brain and their horns were enormously dilated, and at several places at the base rupture had almost taken place into the cranial cavity. When the spinal cord was severed from the oblongata, the central spinal canal was found to be one-sixth of an inch in diameter, and from it much fluid escaped. The chief points of interest were the reference to the diagnosis of aneurism, the mechanism of the process by which the opening in the skull resulted, and the production of the hydrocephalus and hydrorachis.

Senses of Man.—Camille Flammarion, the French astronomer, in referring to the possibilities of creation and the imaginable inhabitants of other planets says :

"Terrestrial man is endowed with five senses, or rather with six. Why should nature have stopped there ? Why, for example should she not have endowed certain mortals with an electric sense ? with a magnetic sense ? with a sense of locality ? with an organ capable of preceiving ethereal vibrations, of infra-rouge and of ultra-violet ? Of a sense permitting one to hear at a distance, to see through the walls. We eat and digest like the grosser animals. Do there not exist worlds where the nutritive atmosphere dispenses its inhabitants from so ridiculous a burden ? The smallest swallow, the dusky bat itself has the advantage over us of flying through the air. Is not our world, where the men of the greatest genius, the most exquisite woman, finds himself or herself nailed to to the earth like the common caterpillar before its metamorphosis, a very inferior one? "Well! Would it be so disagreeble to inhabit a world of perfume and voluptuousness where the flowers would be animated? where suns of many colors—the diamond joined to the ruby, garnet to the emerald and the sapphire—would shine night and day—blue nights, scarlet days—in the glory of an eternal springtime; many colored moons sleeping on the mirror of the waters, phosphorescent mountains, aerial inhabitants, men, women, and perhaps other sexes perfect in their forms endowed with multiplied sensibilities, luminous at will, incombustible as asbestos, immortal, perhaps. At least, Liliputian atoms that we are, once for all let us be convinced that all our imagination is but sterility in the midst of the infinite, scarcely seen through the telescope."—*Doctor's Weekly.*

The Legal Responsibility of Hospitals in the Treatment of Patients.—According to Lorenzo D. Bulette, in the *International Medical Magazine*, the grounds on which a hospital can claim to be exempt are twofold: (1) On the ground of public policy; that if the hospital is liable for the actions of its physicians, charitably disposed persons will be discouraged from contributing to its foundation and maintenance. This argument is met by the statement that the public policy also requires that the onerous duties of a hospital practice shall be performed in a moderately satisfactory way, and that such work should not be exempt from liability from negligence or ignorance. (2) The hospital claims exemption on the ground that it has no capital stock, no provision for making dividends or profits; that its funds are held in trust and exclusively dedicated to charitable purposes, and that no part can be applied to indemnify patients.

The Supreme Court of Rhode Island has decided, after much and careful consideration of the cases, that hospitals cannot be exempted, stating, in regard to the second claim for exemption, that their funds are as applicable to the payment of damages for tort as to the payment of counsel for defending an action for such damages. Both payments are to be regarded as incident to the administration of the trust. The Supreme Court of Massachusetts, in a similar case, has decided in the opposite way. The question, therefore, is more or less of an open one, but after study of the cases on record, Mr. Bulette concludes that the hospital must respond in damages to patients when malpractice has been clearly proved.—*University Medical Magazine.*

Morphine in Heart Diseases.—Dr. Hervouet (*Le Bulletin Médical,*) has studied the action of this drug in mitral insufficiency. All authors agree that it is a valuable remedy in aortic insufficiency and stenosis. It is, however, the same in mitral valvular lesions and asystolia, as opium is thought contra-indicated on account of its congesting action. However, the numerous cases of the writer show that this is not always true. When other means have failed morphine may be tried in order to calm the dyspnœa and nervous symptoms, and procure sleep. In certain cases where cardiac remedies are of no service, or even injurious, then morphine will calm and stimulate, easing the dyspnœa and causing the other remedies to act. The presence of albumen in the urine is not a contraindication if the albumen be of cardiac origin. If used in asystolia it is well to use digitalis together with the morphine. Caffeine, on account of its stimulating action on the heart, is of especial use in replacing the injections of morphine, when it is desired that the patient become not habitutated to its influence. It may be employed at the same time as the morphine. In all cases morphine should be used with great prudence. More than a centigramme ($\frac{1}{6}$ of a grain) should not be given at a time; often half that amount will be sufficient. It is more advisable to repeat the injections frequently than to administer large doses.—*Cin. Lancet Clinic.*

The Pathognomonic Signs of Perforating Appendicitis.—Dr. Simon Baruch (*Med. Record*) emphasizes the point that symptoms of shock, carefully looked for, may always be found in perforating appendicitis. These are as follows: the countenance is anxious, the finger-tips, nose and ears are cool; pulse and respiration are out of proportion to temperature, the right inguinal region is very tender, the patient usually lies with the right leg drawn up. Guided by them, Dr. Baruch opposed the views of an experienced physician in one case, insisting upon the operation; and in another did not approve of the operation advised by an experienced surgeon. In both cases his reliance on these pathognomonic signs proved useful to the patient. On the ground of his own experience, as well as that of others, the author urges that when perforating appendicitis is diagnosed, either positively or probably, an imme diate operation to remove the exciting cause is as imperative as ligation of the vessel in hæmorrhage.

The fact that laparortomies are new constantly performed, under strict asepsis, with absolute safety, should induce the attendant to clear up a doubtful diagnosis of perforatingappendicits by an operation before septic peritonitis forbids it.—*Inter. Jour. of Surg.*

Bromide of Ethyl as an Anæsthetic.—Bromide of ethyl has been somewhat extensively employed in Vienna for anæsthetic purposes. In Professor Billroth's clinic it was used 300 times without mishap. Death, however, subsequently occured in the case of an out-patient who was about to have a very large boil on the arm incised. While anæsthesia was being induced in the usual way the man suddenly became cyanotic and the respiration and cardiac movements ceased. Artificial respiration was persevered with for an hour and a half, but was of no avail. At the post-mortem examination there were found adhesions in both lungs; the heart was fatty and easily torn. The microscope showed that there was fatty and parenchymatous degeneration of the liver and kidneys as well as of the heart. There was no hyperæmic condition of the brain as in death under chloroform. It would seem, therefore, that whatever anæsthetic had been employed the patient might have died; so that no serious degree of blame can be attached to the bromide of ethyl.—*Lancet.*

THE BEST NUTRITIVE ENEMA.—Ewald, as a result of experiments, found that eggs, even though not peptonixed, were, to a considerable extent, absorbed by the rectal mucous membrane. According to the *Mercredi Medical* for April 1st, Huber, of Zurich, has recently repeated Ewald's experiments in Prof. Eichhorst's clinic, and announces that the absorption of raw eggs is greatly aided by the addition of common salt, in the proportion of fifteen grains to each egg, are the best for nutritive enema. His method of procedure is as follows: two or three eggs are taken, and thirty to forty-five grains of salt are added. They are slowly injected by means of a soft rubber tube, carried as high up the bowels as possible. Three such enemata are given daily. An hour before each enema the rectum is cleaned out by means of a large injection of warm water.—*N. Y. Med. Times.*

THE beak of the mosqutio is simply a tool box, wherein the mosquito keeps six miniature surgical instruments in perfect working order. Two of these instruments are exact counterparts of the surgeon's lance, one is a spear with a double-barbed head, the fourth is a needle of exquisite fineness, a saw and a pump going to make up the complement. The spear is the largest of the six tools. and is used for making the initial puncture; next the lances or knives are brought into play to cause the blood to flow more freely. In case this last operation fails of having the desired effect, the saw and the needle are carefully and feelingly inserted in a lateral direction in the victim's flesh. The pump, the most delicate of all six of the instruments, is used in transferring the blood to the insects' stomach.' "—*Discovery.—Doctor's Weekly.*

INDUCTION OF PREMATURE LABOR BY GLYCERINE INJECTIONS.—Pelzer, *Centralbl. f. Gynäk., No. 2, 1892,* gave a very satisfactory account of his experience of this method. He employs chemically pure, sterilized glycerine. A hundred cubic centimeters are thrown up between the membranes and the uterine wall. Full precautions are taken, not only against sepsis, but also against the entrance of air into the uterine cavity. In a short time regular pains set in. The membranes present well, and labor is usually easy. In two cases where labor was induced on account of contracted pelvis, the pains set in, in the first case, within half an hour, in the second, after an hour. Glycerine injections are, in Pelzer's experience, valuable not only for the induction of premature labor, but also for accelerating delivery at term. In uterine atony it proves very efficacious.—*Medical and Surgical Record.*

MR. TYNDALL has been giving some startling statistics concerning nursing as a livelihood. A healthy girl of 17, he says, who becomes a nurse dies twenty-one years sooner than a girl of the same age moving in the general population. That is to say, a hospital nurse of 25 has the same expectation of life as a person 58 has,who is a member of the community at large. Every one is aware of the additional risks that inhere in the service of the trained nurse, but these figures are sufficiently startling. It is not probable, however, that they will deter many from the career, but they will increase the appreciation of the public for the self-sacrifice and often personal heroism of the hospital nurse.

AN officer of the police detail said recently: "When I was a mounted policeman I learned of a most humane and kind method of curing a balky horse. It not only never fails, but it does not give the slightest pain to the animal. When the horse refuses to go, take the front foot at the fetlock and bend the leg at the knee-joint. Hold it thus for three minutes, and let it down and the horse will go. The only way in which I can account for this effective mastery of the horse is that he can think of only one thing at a time, and having made up his mind not to go, my theory is that the bending of the leg takes his mind from the original thought."—*Ex.*

FOR bronchitis, *Guy's Hospital Gazette* suggests the following:—

℞.—Ammonii carbonat . .	gr. xvj.
Syrup. tolu	f ʒ iv.
Tinct. scillæ	♏ xl.
Tinct. cinchonæ comp. .	f ʒ ij.
Spirit. chloroform . . .	♏ iv.
Aquæ rosæ	f ℥ ij.—M.

Sig.—A fluid drachm every four hours.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science, Criticism and News.

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AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER 23 Rue Richer, Paris.

TORONTO, OCTOBER, 1892.

The LANCET has the Largest Circulation of any Medical Journal in Canada.

THE ONTARIO MEDICAL COUNCIL.

Following the remarks in the last two issues of this journal, on the difficulties existing between the Medical Council of Ontario and certain members of the profession, we wish to draw attention in the next place to, what seems to us, an error on the part of the gentlemen who think they have a grievance; and an injustice to the Council. We refer to the charge made, that the members representing Universities and the Medical Colleges are able to run, and indeed *do* run the Council in their "own interests." This we are assured is a grievous error. There is no one, or more than one, of these representatives who have, or can have, any interest apart from the general profession. We are aware that the above statement may be challenged, and the objection raised that college representatives may wish to keep the standard of education low, in order to attract large numbers of students, from whom they, the college men, shall receive large sums in fees. But surely, if a man has enough sense to be a representative of his college in the Council, he will have sufficient foresight not to kill the goose that lays his golden eggs, which he would certainly be doing did he attempt to lower the standard of medical education, or to check the natural and necessary upward and onward tendency of this particular branch of education. Our Council has now been long enough in existence to have left its imprint upon the present generation of medical men, and to have made a record abroad as to the qualifications of its licentiates. Now it cannot be denied that these qualifications are considered good, and are respected wherever they are known. As to the medical men of Ontario to-day, taken as a body, it may not become us to speak, but they are *surely not behind* those of any other state or country in the world, of equal age, wealth and culture. These are facts, or are believed to be facts, by the great majority of men in Ontario, professional or otherwise, who have any opportunity of forming a judgment in the matter.

How then, can the natural tending upwards of the standard of education have been burked by the college representatives? The condition of medical education in Ontario to-day, the name we have away from home, the very status of the men composing the active, working profession, here and now—all these go to show that advance has been made, and that we believe, as rapidly as the circumstances of a young, poor country would possibly allow.

Even had the college men in the Council the desire to lower the standard, or to keep it at a standstill, they would still lack the power, for want of numbers; for if we look at the list of members, we find that out of a total of twenty-six representatives, only nine are from the colleges. Moreover, it is a well-known fact that there is not a great unanimity of feeling existing between these college men. The rivalry of the different schools precludes such a state of affairs. But let it be again noted, that even did the college men unite, and form a solid phalanx, a thing which we are safe in saying has never occurred, they would be only nine, as against seventeen territorial representatives and homœopaths. How, then, can this absurd charge be substantiated?

Certain it is that men engaged in teaching medicine, know more than others, the wants and capacities of our students of medicine, and they have, or at least some of them have, objected to too great changes being made in a short time, in the curriculum. This must appear, to any unprejudiced observer, as wise and prudent. Their representatives on the Examining Board have given, so far as it is possible for examiners to give it, uniform satisfaction, by the thorough and impartial way in which they have discharged their duties. It is an open secret that some of the examiners who are not engaged in teaching, have not been so successful in examining—a thing naturally to be expected. If a man is engaged each year in teaching a subject, he will necessarily make a better examiner in that subject than one who is engaged in general practice, and does not devote special attention to any one subject. And this while the qualifications and ability of the latter gentleman are quite on a par with those of the teacher.

The way is open, and we think it a fair and just way, to lessen the number of college men in the Council. We mean, by taking away the right of representation from those colleges or universities that do not teach medicine. It seems an anomaly, and opposed to the spirit of college representation, that such should have a voice in medical matters.

AT OUR GATES.

Now that the grim hand of cholera is knocking at our gates it becomes the duty of every medical man to be thoroughly posted as to the best methods of checking this scourge, should it succeed in gaining a foothold in America. It is all very well for Sir Edwin Arnold to playfully refer to it as "a pain in the tummy." In his case "familiarity breeds contempt," for, coming as he does, from India and Japan, where the disease usually attacks the natives, the Europeans enjoying a certain immunity, owing to their more cleanly habits, he considers it a thing to be made light of. But, taking the mortality in Hamburg, one in every two-and-a-half attacked dying, the awful nature of the plague becomes apparent.

Every suspicious case of diarrhœa should be closely watched, and not merely put down as harmless, for with cholera in New York city, as it is at present, a traveller might easily come into Ontario bearing the germs of the disease, in spite of quarantine, and let a case but once get into a community and infect the source of water supply, and it will require strenuous efforts upon the part of the health authorities to eradicate it.

Cholera is propagated in somewhat the same manner as typhoid fever, the germ entering the stomach by means of the water or food supply, and possibly by means of dust, laden with germs entering the naso-pharynx and subsequently swallowed. In our opinion the latter source of infection is much more common than is ordinarily supposed. The fact that England, with her many ports open to foreign commerce, has successfully grappled with the disease, should make us hopeful that our system of quarantine will be likewise efficient to isolate any cases entering Canada.

In this disease prevention is truly much better than cure, for, like the majority of acute diseases, it is self-limited, and runs a short course, characterized by great depression of the vital forces.

All water should be carefully boiled before use, and personal cleanliness carefully attended to. With these details followed out, and the people prevented, so far as possible, from becoming panic-stricken, the chances of an epidemic are greatly lessened.

Sir Edwin Arnold says, "the germs of cholera cannot survive a low temperature, dying upon the approach of winter." That this is not the case in Canada, is shown by the fact that in the epidemic fifty years ago the disease lasted through the winter and spring months, and it has been clearly proven that the bacillus may exist in ice, all of which goes to warn us not to relax our vigilance one iota on account of the approach of cold weather. While there is not great danger to be apprehended at present, it is well to remember that forewarned is forearmed.

MEETING OF THE CANADA MEDICAL ASSOCIATION.

The twenty-fifth annual meeting of the Canada Medical Association was held in the Parliament buildings at Ottawa, on September 21st, 22nd and 23rd. It was indeed a successful meeting; upwards of one hundred and fifty members being present, and those who have in the past entertained any fears that the Association was on the wane, may dispel the illusion. There was a goodly contingent from Montreal, and a fair number from Toronto and Hamilton; while the local profession entertained the members in a becoming manner. On the evening of the 22nd a magnificent banquet was participated in by members of the Association, at which music and song, together with reason and soul, constituted the order of business until the small hours of the morning. Not a little of the success of the meeting was due to the attendance of honorary members from the United States, and we have to thank Drs. McLean, of Detroit, and Bulkley, of New York, for doing considerable to insure the success of the meeting. Considerable interest was manifested in the discussion of the subject of cholera.

The Hon. John Carling, Minister of Agriculture, who was there at the special request of the Executive, assured the members of the Association that the Government was fully alive to the importance of the subject, and was doing everything that could be done to prevent the cholera from entering Canada by any of her ports, or other means, and by next spring their system of protection would be simply perfect. The Minister referred to the excellent work going on at Grosse Isle, and spoke of the building of the deep water wharf, which would be built at Quebec, and would probably cost $100,000. Steps were being taken at all points, and ports that money would not stand in the way, nor anything be left undone to insure the success of the preventive measures.

The meeting is to be held in London, Ont., next year, and the following constitute the officers :

President—Dr. Chas. Sheard, Toronto.

Vice-Presidents—Ontario—Dr. Wickard, London ; Quebec—Dr. Shepherd, Montreal ; British Columbia—Dr. Milne, Victoria ; Manitoba—Dr. Chown, Winnipeg; North-West Territories—Dr. Kennedy, Fort McLeod ; Nova Scotia—Dr. Lindsay, Halifax ; New Brunswick—Dr. Daniels, St. John ; Prince Edward Island—Dr. McLeod, Charlottetown.

Local Secretaries.—Ontario—Dr. Waugh, London; Quebec—Dr. Desrosiers, Montreal ; British Columbia—Dr. Lefevre, Vancouver ; New Brunswick—Dr. McLarne, St. John ; Nova Scotia—Dr. Morrow, Halifax ; P. E. I.—Dr. F. B. Taylor, Charlottetown ; N. W. T.—Dr. Cotton, Regina ; Manitoba—Dr. Milroy, Portage la Prairie.

General Secretary—H. S. Birkett, Montreal.

Treasurer.—W. H. B. Aikens, Toronto.

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TOBACCO AND BRAIN POWER.—Says the *St. Louis Clinique* :—The classes in Yale College are subgraded according to scholarship, and it is found that in the first or best grade only twenty-two per cent. use tobacco ; in the second grade, forty-eight per cent.; in the third grade seventy per cent., and in the fourth or lowest, eighty-five per cent.

RESOLUTION OF THE MEDICAL PRACTITIONERS OF OTTAWA.

At a meeting, held this first day of August, 1892, of the Ottawa members of the Bathurst and Rideau Medical Association, which includes all the registered medical practitioners resident in the City of Ottawa, the following resolution was carried unanimously :

Resolved, That this meeting, having been officially informed of the action of the Dominion Government whereby by Order in Council—"Every qualified medical practitioner whose name is registered in the Medical Register of the province in which he resides is appointed an authorized medical practitioner for the purpose of issuing medical certificates as required by the *Civil Service Act.*" That they desire to express their full appreciation of the courtesy thus extended to the members of the medical profession throughout Canada ; and they believe also that this course is in the interest of the members of the Civil Service, equitable towards the members the medical profession and equally protective to the interests of the Government, as compared with the former regulation of having only one authorized physician in each locality.

Resolved, That this meeting is of the opinion that it would be well for the Government to adopt and have printed a form of blank medical certificate to be filled out by physicians, giving such to Civil Servants who are in and under their care.

Resolved, That whilst the members of this Association desire to express the opinion that there is no body of men who would more readily condemn a physician for wilfully issuing an unwarranted and unworthy medical certificate than the members of the medical profession, and whilst they declare that such a physician would be deserving of the severest censure and his name should be erased by the Government from the list of authorized medical practitioners--yet inasmuch as there are cases where the trained medical mind is enabled to discover slight symptoms of disease, indicating serious possibilities in the near future, where divulgence might thwart the chance of cure, together with the fact that the lines of professional secrecy are inelastic and demand invariably the most honorable observance, it would be but justice that before any physician's name is removed by Order in Council from the list of authorized medical practitioners under the Act, for reported irregularity, he should have the right extended to him of explanation and of defending his action.

Resolved, That a copy of this resolution be sent to the Dominion Government, through the Honourable the Premier, Sir John Caldwell Abbott, and that a copy be also sent to all the medical journals in Canada.

A. F. Rogers, M.D., *Pres.*
H. B. Small, M.D., *Sec.*

THE ADDRESS ON SURGERY AT THE BRITISH MEDICAL ASSOCIATION.

It is worthy of note that the address on Surgery at the late meeting of the British Medical Association was delivered by a colonial member, Dr. Hingston, of Montreal. This is the first time that any "colonist" has had that honor. The Americans have been represented by Professors Flint and Gross, and now the conservatism of a great British institution has become liberal enough to permit a Canadian to take the place of honor. We have read the address and can say, that as Canadians we may be proud of our representative. In Canada, Dr. Hingston has long been looked upon as an authority in the subject of Surgery, and from the manner in which he was received, and from the comments of the British medical journals, we may congratulate ourselves upon the choice having fallen upon so worthy and capable a man. He took advantage of the ocaasion to assure the meeting of the firm attachment of Canada to the parent state. "She glories," he said, "in your past, she is deeply interested in your future; your glory is her glory, your future is her future; and she is grateful for any thought of her in your councils, especially where science is concerned, and where the common good of mankind is the purpose." This is a loyal and beautiful sentiment, and it would be a "glorious" thing for Canada if a similar interest in our welfare could be aroused in the breast of the average Briton.

Correspondence.

To the Editor of the Canada Lancet.

Sir,—In an editorial of the August No. of the Canada Lancet mention is made of the good which has been accomplished by the Medical Council of Ontario, in elevating the standard of medical education; an assertion which, I think, no one conversant with the facts will attempt to deny or dispute. Reference is also made to the irritation and annoyance felt by some, respecting the penal clause, for non-payment of the annual assessment, and it is of the latter that I wish to make a few remarks. Having attained my membership in the College of Physicians and Surgeons by passing all the examination established under its curriculum—I believe it cannot be said that I am inimical to that institution. The special point which I wish to bring out is this, that non-resident members, under pain of having their names stricken off the register, are compelled to pay the annual assessment of $2, the same as those residing in Ontario. Being residents of another country we partake of none of the benefits. When in August of last year I became aware of the penal clause, in the Amended Act, I wrote my friend Dr. John L. Bray, of Chatham, and under date of August 12th, he said: "It (the penal clanse) may prove unfortunate in some cases, but it became a necessity to make some change in the law, as some $6000, due the Council, in the shape of assessments, could not be collected. One thing, if a man should be struck off for this cause, he can easily be put on again by *paying up*, so that there is no hardship committed by it that can not be easily remedied."

Now, while this may be true, there is another phase of the question which seriously presents itself to my mind. Suppose my name be struck off the register for the non-payment of assessment; afterwards a change or amendment be made in the Medical Act of Ontario, enacting that only the names of such as are *then* on the register, shall be legally qualified practitioners, and subsequently I return to Ontario, and wish to resume practice, I would find myself legislated out of my profession, and unable to gain redress; I can conceive of such a condition being possible and working a great hardship. I would suggest as a preventative remedy that the Act be amended so that the names of all non-resident members of the College who neglect or refuse to pay the annual assessment be placed in a separate part of the register, so that should any change be made in the Medical Act, they will not be left out in the cold, and should they return to Ontario, not find themselves, like Othello, with their "occupation gone." It may be said that the annual assessment is but a small matter of $2; but why should non-residents, who are not benefited, be compelled to pay? There is a principle involved. "Taxation without representation is tyranny," and its attempted enforcement changed the political map of this continent. Thanking you for the space,

I am, yours truly,
JAMES NEWELL.
Detroit, Mich., Sept. 16, 1892.

GOLDEN RULES OF SURGICAL PRACTICE.—*Continued—(Times and Reg.)*:

HEAD.—Do not forget that an injury to the head is never too slight to be despised, and never too severe to be despaired of.

Never be precipitate in opening a hæmatoma of the scalp.

Never close a scalp wound until or unless all dirt is or can be removed.

Never hesitate to suture contused and lacerated wounds, but in doing so do not forget the drainage.

Never put stitches in deeply; there is no reason to wound the tendon.

Beware of cellulitis of the scalp when the dangerous layer of the scalp has been opened. In such cases do not be afraid of incisions, only let them be run from before backwards, be 2 inches in length, and down to the bone. In these cases beware of depletion or deprivation, because they occur in the broken down.

Never forget to examine the sub-occipital glands as an index to:

1. Erysipelas of scalp.
2. Pediculosis.
3. Syphilis.

Do not hesitate to trephine if the skull cap is exposed—if there are definite signs of localized paralysis, and if there is no suspicion of general pyæmic infection.

Never forget that a blow on one side of the skull often produces its main effects on the opposite side of the skull.

Do not mistake the depressed center of an extravasated blood-clot or congenital malformation, or atrophy, for depressed fracture, or the sutures for a linear fracture.

Remember that the more a fracture approaches the punctured form the greater the need for the trephine. Do not forget the rule:

If the depression is slight,
If the extent is considerable,
If no symptoms are present,
leave it, or *vice versa*, operate.

Remember that the operation for the removal of fragments, which have been pressing on the brain is rarely complete, spiculæ being often left behind.

Remember in trephining the skull that you are to consider the bone under your instrument to be the *thinnest* you have encountered.

Never undervalue the use of calomel and opium in head injuries.

INCONTINENCE OF URINE TREATED BY COLLODION.—Dr. J. E. Powers (*Mass. Med. Jour.*), says. The mechanical treatment to which attention is called, is the treatment by collodion. It is most easy of application, occupies scarcely a minute, and can be carried out at school, college, or elsewhere, in perfect privacy. All that is necessary is, while the prepuce, slightly curved up, is held with the left hand, to smear over the little cup thus formed by the extremity of the prepuce with collodion by means of a small camel's hair pencil or blunt end of a penholder. Almost as fast as applied the collodion solidifies. In contracting it draws closely together the edges of the prepuce, and thus the exit for the escaping urine is closed.

A boy of eleven years of age has, after one lesson, been able to use the collodion, and has used it every night carefully and diligently, so anxious has he been to cure himself of what he considered a disgrace. A fortnight's use is sometimes sufficient for the cure. A relapse is easily dealt with. A solution of gutta-percha in chloroform would seem at first sight to be equally applicable, but it is not. The solution of gutta-percha is much longer in hardening, and it possesses no contractile powers. When the child desires to pass water, the little wedge or cap of collodion is easily removed with the finger-nail.

When I first used this collodion application, my expectation was that the bladder would act so forcibly against it as to cause sudden pain, and oblige the patient to jump at once out of bed and quickly remove the collodion, and that he should then repeat the application before returning to sleep. I was greatly disappointed. There was no pain; no awakening; but on rising in the morning the prepuce was found slightly distended with urine, and the collodion was removed without difficulty.

Leukæmia.—Weber (*St. Petersburger Med. Woch.—Brit. Med. Jour.*) gives an analysis of some twenty-eight cases of this disease. He divides them after Virchow, into (1) the lienal form, where the white cells are large, the nuclei being small; (2) the lymphatic form, where the white cells are small and the nuclei large; and (3) the mixed form. Twelve of these 28 cases belonged to the first group, four to the second, and twelve to the third. The spleen was enlarged in all the cases. The splenic tumor was smooth, and where the increase in size had been rapid there was evidence of local peritonitis. In ten cases there was considerable enlargement of the liver, but this was not uniform, as is readily explained by the morbid anatomy. In ten cases there was polyadenitis, whereas in four cases the mesenteric glands were alone enlarged, in four the cervical and thymus, in two the mammary glands, and in two the axillary glands. In these last four cases there was suppuration in the glands. In the case of the mammary glands the suppuration began in small foci in the periphery. When the glands were involved, the lymphatic form of the disease predominated. The author's table would show that the disease may occur at all ages. Four of his cases occurred in the first year of life, and three in the seventh decade. It was most frequent between the ages of 15 and 25. The author lays stress on psychical influences as a cause. He then relates in detail two cases, one of which is remarkable, as the patient seems to have recovered. In this case the spleen and many of the glands were involved.

Inequality of Pupils in Epileptics.—Unequal size of the pupils (anisocoria) has long been recognized as occurring in some cases of epilepsy, and has been supposed to have some diagnostic value when the nocturnal form of epilepsy is suspected to exist. Browning (*Jour. of Nerv. and Ment. Dis.—Brit. Med. Jour.*) found unequal pupils in 16 out of 150 cases of epilepsy. He distinguishes three types of the affection: (1) cases in which the inequality is great; (2) slight but fairly constant difference in size; (3) latent anisocoria—that is, inequality only distinct on faint illumination. Three of his cases were of the first type; two of these were syphilitic; the third was traumatic epilepsy, hence the anisocoria was regarded as being a local symptom. In the ten cases belonging to class 2, the constancy of the condition is opposed to the supposition that it was a paretic symptom due to post-discharge exhaustion. Browning observed latent anisocoria first and more frequently in non-epileptics; he suggests that it indicates disproportionate innervation of the iris by the symphathetic, which only becomes manifested when the action of the oculo-motor is relatively or wholly suspended.

Treatment of the Tympanites in Typhoid Fever.—E. T. Nealey M.D., in the *University Med. Mag.*, says: I have always considered tympanites as a dangerous element in typhoid fever; for I have seen several patients die apparently from the distention due to the accumulated gases, a condition which I was unable to relieve satisfactorily. The bowels often fill up with alarming rapidity, this being probably the cause of perforation in many cases.

I saw a case in consultation last year, which was undoubtedly intelligently treated. The distention was in the extreme. So far as I was able to determine the case was uncomplicated with perforation, and it seemed as though the man would live if relieved of the accumulation of gas. All of the usual methods had been applied—injections, aspiration and rectal intubation—but with negative results.

A similar case occurred in my own practice during the last year. A boy, nine years of age, during the third week of fever, *suddenly* developed an alarming tympanites. The abdomen was fearfully distended, lower part of chest wall was widely forced out, stomach collapsed and unable to retain drugs, food or stimulants. Respiration was labored and rapid. This was a case that I had been holding up under heroic doses of stimulants, and without them he began to sink rapidly. I considered the end certain and close, unless relieved of this condition. I tried all of the usual methods without giving the needed relief. I then used the injection which I commonly use in abdominal section: one ounce of salts, two ounces of glycerin, three ounces of warm water and thirty drops of turpentine. In thirty minutes the child began passing liquid stools, accompanied with an immense quantity of gas, with very decided relief of alarming symptoms. The injection was repeated in a few hours for another rapid accumulation of gas, and with the same results. The child made a perfect recovery, although it was one of the worst cases I have ever seen. I have repeatedly used this injection since in milder cases for constipation and accumulation of fæces and gas, and it has seemed to be all that one could desire in its effects.

Dr. Lingrand, (*Le Concours Med.—Med. Brief.*) gives the following table, which will be found very convenient for making calculations, especially as it can be very readily learned :

January	3	July	4
February	3	August	3
March	5	September	3
April	5	October	3
May	6	November	3
June	3	December	4

To arrive at the two hundred and seventy days, start at the day which marks the end of menstruation and count backwards three months, then subtract the number of days indicated in the table opposite the month in which the catamenia ceased. For example, the 24th of July being the day indicated above, we begin by counting backwards: June 24, May 24, April 24—April 24 less four days (the number opposite the month of July in the table) = April 20 = two hundred and seventy days. To this may be added seven days, or better, from seven to seventeen days according as the fætal movements first perceived by the mother indicate a period more or less near the last day of menstruation. When February has twenty-nine days' as in the present year, and is included in the calculation, one day more should be subtracted.

Treatment of Hæmorrhoids.—Dr. J. Brindley James writes to the *Br. Med. Jour.*, that he has for some years been in the habit of treating hæmorrhoids by the simple process of applying calomel to them with the finger alone, and without a single exception he has done so with marked success, especially when inflammatory action was obvious in the hæmorrhoidal mass, characterized by mucus discharge and hæmorrhage, accompanied by most painful sensation of weight in the rectal region. All these symptoms under this simple influence were speedily relieved, with the still more important subsequent advantage of the patients' restoration to ease. "Only a few days ago," he writes, "a patient came to me suffering so acutely that he could neither sit nor walk freely, each movement of the body entailing exquisite pain. I have now seen him thoroughly enabled to pursue his usual occupations in happy immunity from these distressing symptoms."

Hereditary Transmission of Mutilations.—Dr. C. G. Lockwood, of New York, (*Bos. Med. and Surg. Jour.*) has recently published some interesting results of his experiments on the hereditary transmission of mutilations. White mice were selected on account of their rapid breeding, as they begin to breed when they are thirty days old and breed every thirty days. He bred them in-and-in for ninety-six generations, destroying all the sickly and defective ones, and in this way obtained a larger and finer animal than the original pair. His experiments in breeding their tails off were done by selecting a pair and putting them in a cage by themselves and clipping the tails of all of the young. When these were old enough to breed he selected a pair, and when they had young, clipped their tails. By contiuning this breeding, in the seventh generation he got some young without tails and finally got a perfect breed of tailless mice. By taking one with a tail and one without a tail and alternating the sexes in each generation, he finally again got a breed of all-tailed mice.—

For Rhus and Ivy Poisoning.—Says Dr. S. B. Stanley in *Times and Reg.* :—A. H., aged sixty years, a laborer, came to my office with an inflammation of the skin of the hands and fore-arms, extending to the middle of the arm. Beginning with lotions of lead-water I tried the most effective remedies for rhus poisoning, which careful inquiry into the patient's habits proved this to be, and was much chagrined to find that nothing gave relief to the itching and burning, or held in check the inflammation. As a *dernier ressort* a strong decoction of chestnut leaves (*Castanea Fagus*) was used, bathing the inflamed part every three or four hours. In twenty-four hours all the distressing symptoms had subsided, and the patient was discharged cured. Since using the above, which was in August, 1888, I have prescribed the castanea treatment for all cases of rhus and ivy poisoning, and in all stages of the inflammation, with the single result in every case of perfect relief, from all symptoms in from twenty-four to seventy-two hours. I do not find this treatment in books on diseases of skin which I have read, and therefore offer it to the profession.

Lactic Acid as a Prophylactic in Gout.—Berenger-Feraud (*Jour. de Méd. de Paris*), recommends the employment of lactic acid to prevent the gouty attack. To six hundred grains of the acid is added sufficient water to make a solution of twenty teaspoonfuls, each teaspoonful will thus contain thirty grains. Every morning a teaspoonful of the solution is added to two or three glasses of sweetened water and drunk in the course of the day. At the end of twenty days the medication is suspended for ten or twelve days, and then resumed. The treatment should be continued for several years. The remedy is inoffensive, and does not interfere with the digestion or the nutrition.

For Laryngeal Phthisis.—In the treatment of this affection, Cozzolino (*Revista de Ciencias Médicas de Barcelona*) employs the following:

℞—Pulv. iodoform . . . 5.00 grammes.
Powd. phosph. calcium . 10.00 grammes.
Boric acid powd. . . 5.00 grammes.
Menthol. from 40 to 80 centigrammes. M.

Sig.—To be insufflated into the larynx, night and morning.

Strontium Lactate in Tænia.—Laborde, (*Jour. de Méd. de Paris*), has had excellent results in tænia with the usual dietary care from the following:

℞—Strontii Lact., ... ʒ j.
Aquæ, ... ʒ viij.
Glycerini, ... q. s.—M.

Sig.—Two teaspoonfuls every morning for five days.

A Means of Resuscitation of the Apparently Drowned.—Laborde says (*La France Méd.*) this means is to be used in conjunction with the ordinary methods. It consists in seizing the tongue, and making energetic, backward and forward movements, causing powerful action and excitation of the base of the tongue, and producing reflex respiratory action. This simple expedient has succeeded even after immersion of twenty-five minutes duration, and after the usual methods had failed.

Books and Pamphlets.

Transactions of the American Climatological Association, Vol. 8, 1891. Philadelphia: W. B. Saunders & Co., 913 Walnut St. Price $1.50 net. Toronto: Carveth & Co.

The above work has been received, and is fully up to the standard of the former volumes. Among the most noteworthy papers read at the 8th annual meeting of the Society, being "The Treatment of Catarrhal Inflammations," by Beverley Robinson, the well-known New York specialist, who treats of the subject in a most thorough and practical manner, and "The Pretubercular Condition," by Dr. Hilgard Tyndale. We can thoroughly recommend the work to those interested in climatology.

Materia Medica and Therapeutics.—By L. F. Warner, M.D., Attending Physician, St. Bartholomew's Dispensary, New York. Being volume 5 of the Students' Quiz Series. Pocket size, 224 pages, $1.00. Philadelphia: Lea Brothers & Co. 1892.

This will be found a useful little work for students. It is a compend based upon the works of some of the best know writers on the subject, as Brunton, Bartholow, Wood, Bruce, etc.

Genito-Urinary and Venereal Disdases; a Manual for Students and Practitioners. By Charles H. Chetwood, M.D. Philadelphia: Lea Bros. & Co. 178 pages, $100.

This is another of the "Quiz Compends." The complier has drawn his material from the works of Drs. Edward L. Keys, Ultzman, Sir Henry Thompson, and Ashurst.

Obstetrics, a Manual for Students and Practitioners. By Charles W. Hayt, M.D. Philadelphia: Lea Brothers & Co. 186 pages, $1.00.

This compend contains the most important matter on the subject in as condensed a form as possible. It is based upon Charpentier, Hirst, Playfair, Winckel and Lusk.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

Original Communications.

FLAP SPLITTING OPERATION FOR VENTRAL HERNIA.

BY H. MEEK, M.D., LONDON, ONT.

What I have to say on the subject of ventral hernia, will be principally with reference to that form of hernia occuring in cicatrix following abdominal section, and, as a forerunner, I shall report a case on which I operated some months ago.

In December, 1890, I removed uterine appendages from a patient suffering from chronic oöphoritis and prolapse of ovaries; abdominal walls were thick and fat, no drainage tube was used, recovery from operation was somewhat retarded by suppuration in track of a couple of sutures on left side. She was in hospital about three weeks after operation, and then went home, but did not move about much for some time. An abdominal belt was worn after wound healed, though not continuously; always wearing a bandage, however when not wearing a belt.

About following June, she noticed a bulging at lower end, and to left of cicatrix. The protrusion increased in size slowly. On my return from Europe in November last, she called on me, and on examination I found a ventral hernia in line of cicatrix, and to left of it about two and a half inches, in both linear and transverse diameters. The recti had separated along line of incision, for a distance of about two and a half inches. The left rectus appeared to be separated from median line a greater distance than right. The cicatrix had not widened out much. The mass could be pushed back into general peritoneal cavity, but could not be retained in place by any kind of support, owing to wide separation of recti muscles low down. After trying to keep protrusion back, by means of supporter for a time, and failing, I advised operation, to which the patient readily consented.

On January the 7th, 1892, after preparation as for laparotomy, I operated in the following way: I made linear incision in line of cicatricx down to sac; after carefully opening sac, adhesions were separated sufficiently to return contents, which were chiefly omental, into general cavity. I then clipped away superfluous sac, and with scissors split inner border of each rectus along whole length of separation to a depth of about half an inch, making an anterior, and posterior flap; then by means of a Tait perineum needle I passed a row of buried silk worm gut sutures in such a way as to separate the flaps, and bring together the broad raw surfaces of muscle thus made, taking care to have the wound perfectly dry and no clots between flaps thus brought together; then carefully drying superficial wound, I united skin and superficial fascia by a superficial row of silk worm gut sutures, thus closing the whole wound completely without drainage.

The operation was performed in as thoroughly an aseptic manner as possible. The dressings, and after-treatment were the same as after abdominal section for other purposes. Bowels were moved on the fourth day by salines and enema. Patient made a rapid recovery. Temperature never rising a half a degree above normal. I removed superficial sutures on eighth day, the wound having completely healed by first intention. The deep buried sutures were left to take care of themselves. Patient was up at the end of the third week with a thick solid wall in place of the hole which had marked the site of the hernial protrusion.

It is now nearly six months since the operation. I examined the patient but a short time since, and found the support as one would naturally expect a more firm and solid one than that which nature had originally given her.

Eddebohls in a paper published in the *American Journal of Obstetrics*, May, 1891, has pretty thoroughly ransacked the literature on the subject of ventral hernia. The literature on this subject up to that date was found to be rather scanty.

Very little is said on the subject in the ordinary text books on surgery, either general or special. Most of the literature being obtained from the published transactions of gynæcological societies. I suppose the scantiness of the literature on the subject may be accounted for by the fact that the vast majority of cases met with, have followed abdominal section, and prior to the last ten or fifteen years, abdominal section was not a frequent operation.

Statistics as to the frequency of hernia following abdominal section are not easily obtained owing to the difficulty of following cases after operation. Eddebohls puts the frequency in his own cases at about one in thirteen where diastasis of muscles followed, aout one in twenty where protrusion followed. This corresponds pretty closely with statistics of my friend Mr. Christopher Martin, assistant to Prof. Lawson Tait, who puts it at about 5% where small hernia, and about 1% where large, bad hernia follows.

I think, taking the same class of cases, hernia will follow less frequently as the experience of the operator increases.

CAUSES.

Line of Incision.—Goodell (*American Syst. of Gynæcol.*, page 803) says: "I am by no means sure that the subsequent cicatrix would not be firmer, and less liable to thin out into a ventral hernia, were the recti muscles incised instead of being avoided."

Tait usually makes his incision down along side of linea alba opening sheath of rectus, but does not attach very great importance to this as a preventive.

I should think incision through lateral abdominal wall outside recti muscles, more likely to be followed by hernia than median incision.

Length of Incision.—Mr. Christopher Martin mentions long incision as a cause. Majority of European operators think length of incision has little to do with causation. I think where incision is carried very low down, hernia is more likely to follow.

Method of Suture.—Martin, of Berlin, and Tait, think method of suture of little importance. In Hospital Bichat, Paris, peritoneum fascia and skin are usually sutured by three separate rows of suture. Olshausen and Veit, of Berlin, use three rows of suture, and consider this method of suture of importance.

Many of the New York operators suture in this way. Wylie lays particular stress on getting fascia of recti united evenly by a separate row of buried sutures, and says that for the past three or four years, he has had no cases of ventral hernia following his abdominal sections.

There is no doubt about the importance of getting fascia evenly united, whether this is accomplished by one deep row of abdominal sutures or by a separate row of buried sutures. I think, too, where peritoneum is allowed to roll up between muscles close union is prevented, and you get a weaker wall.

Early removal of sutures is a cause of considerable importance. Sutures should be left in till the eighth day, or longer, if possible, and for this reason silk-worm gut being non-irritating is superior to silk as an abdominal suture.

In a poorly nourished patient on whom I did an exploratory incision, finding a retro peritonial sarcoma, I removed the abdominal sutures on the seventh day, the wound having apparently healed by first intention; twenty-four hours after the omentum had forced its way out, separating wound in nearly its whole length, and when examined was found as a thick mass under the dressings. I tied it off, and again closed wound, the patient luckily going on as if nothing had happened.

Anything interfering with primary union, as stitch hole and mural abcesses, which are more apt to occur in very fat abdominal walls, will leave a weak cicatrix, more liable to thin out into hernia. Where the drainage tube is left in for more than three or four days, a weak point in wall would follow.

All cases where pedicle is treated by fixation in abdominal wound, as in hysterectomy, extra peritoneal, fixation of stump, are particularly liable to be followed by hernia.

In a case where I assisted Dr. Eccles, a very large cyst of kidney was opened and drained, sac was fixed in wound, a discharging sinus continued for several months. A moderate sized hernia formed after sinus had completely closed.

Intestinal flatus following operation I consider the main cause in one of my cases. A patient suffering from salpingitis and pelvic peritonitis, from whom I removed intensely adherent appendages, March 7th 1891, began to show symptoms of intestinal obstruction in less than forty-eight hours after operation, regurgitation from stomach, great distention of abdomen, rapid, weak pulse, running about 150 per minute; very restless. I first tried enema and salines with no effect. I then gave her calomel grs. x, tr. belladonna, m. x, every two hours with nothing else by mouth, except sufficient water to get the dose down, stimulants and nutrient enemata being administered by rectum. She took eight doses before any effect; having vomited first dose, she had seventy grs. of calomel, and seventy minims of tr. belladonna in her stomach before bowels moved. After this they moved pretty freely for a time, but she made an excellent recovery; she continued to be troubled with flatulence, however. I have not seen her since she left hospital, but had a letter from her last winter stating that she had been quite well since, except a small lump in line of wound which, from description, I have no doubt is a ventral hernia.

Whether the neglect to wear an abdominal supporter in all cases for several months after operation, is of much importance as a cause, is a question of dispute. Most operators think it important. Wylie, however, thinks if proper union of wound is obtained, it is not necessary to wear an abdominal supporter after.

The symptoms from which ventral hernia cases suffer, are principally disturbances of digestive and nervous systems. Both strangulation and rupture may occur. Eddebohls, in a paper referred to, mentions five cases where death followed operation for relief of strangulated ventral hernia, and two other cases where recovery followed such operation. He also mentions three cases of rupture, so that the possibility of strangulation, though not great, should not be lost sight of.

In the treatment of cases, I think that if the hernia can be replaced, and kept in place by an easily-fitting truss, this, the palliative treatment, may be adopted. Where it cannot be kept in place in this way, or where the patient, from any cause, prefers operation to a truss, it should be operated on for radical cure.

With regard to method of operating in my case, I do not claim anything original with myself in the operation. When with Mr. Tait, last year, I saw him operate in this way, except that he united skin with continuous silk suture instead of silk-worm gut. In every other particular the steps in operation were the same. So far as I know, this method of flap-splitting for ventral hernia, and bringing flaps together with buried silk-worm gut sutures, and closing the wound without drainage, is original with Tait.

I think the results are more satisfactory, recurrence being almost an impossibility after an operation done in this way than from any other method. Whether the sac should be opened or an extra-peritoneal operation performed as advocated by Eddebohls, will depend on whether the sac can be easily separated from its coverings or not. In the majority of cases I think it cannot. If the skin cicatrix is not spread out much, it need not be dissected out. After opening sac it is not necessary to break up all adhesions of contents, but just enough to get mass back into cavity. If the operation is performed aseptically, and precautions taken that nothing is left in wound to interfere with primary union, there will be no necessity for drainage, and the buried sutures will never cause any trouble.

Mr. Tait has operated for the radical cure of ventral hernia many times with no deaths, and without a single instance of recurrence of the hernia. In nearly every case he opens the sac. He never uses drainage of any kind, and considers the operation for the radical cure of ventral hernia an operation attended with scarcely any risk.

OCULAR PARALYSES FROM BASAL LESIONS—REPORTS OF CASES.*

BY D. J. GIBB WISHART, TORONTO.

Lecturer in Diseases of the Eye, Ear, Nose etc., Woman's Medical College. Assistant Demonstrator in Anatomy, Trinity Medical College, Toronto.

Case I.—J. A., æt. 56, builder, referred by Dr. Clarke, Jan., 1892, suffering from convergent strabismus. He presented the following history, for which I am indebted to Dr. Clarke:

"On the 20th of Feb., 1891, when coming out of an office door, he slipped on an icy step, falling ten to twelve feet, and alighting on the back of his head. When picked up was in full possession of all his faculties, but bleeding from the right ear and the nose. The bleeding was very profuse, a trustworthy bystander thought he must have bled a gallon. Bleeding continued in smaller quantity for three or four days, then gave place to a watery discharge, not copious, which lasted only a day or two. Headache and vomiting set in a few hours later, and next morning convergent strabismus of right eye, accompanied by vertigo, was present.

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*Read at the Ont. Medical Association, June, 1892.

"This condition was maintained for three weeks, when a stage of excitement, followed by wild delirium set in, with a temperature of 101-103 degrees, and persistant hiccough. Diplopia, and dimness of left eye vision was also noticed. Sensibility was gradually recovered, but with it set in an intense thirst, requiring great quantities of water to satisfy it; his attendants say five to six gallons daily. The urine reaction was normal.

"Convalescence soon set in, and about thirteen weeks from date of injury, he began to walk about. The strabismus of right eye and dimness of left eye vision persisting, with vertigo on closing right eye and difficulty in maintaining the erect position when walking. The memory was greatly impaired for many weeks after the injury, and is still defective for any new fact or idea."

On examining the patient, I found him a highly intelligent man, apparently in full possession of all his faculties; has always been hypermetropic. Right eye directed inwards to face the canthus. Vision right eye equals $\frac{20}{50}$, with plus 2 sph. equals $\frac{20}{30}$ and with plus 4 equals 2 sn.

The right eye is used altogether for vision by turning head to angle of 70 degrees; with the aid of a stick he walks pretty steadily; but if he closes right eye becomes dizzy and falls forward. Diplopia is not complained of.

All the movements of right eye appear to be normal, except that there is absolutely no movement outwards and the pupil is immobile. Ophthalmoscopic examination was impossible in right eye, but in left eye the fundus was normal. Ordered the proper reading glasses.

Saw patient again three months after in office; he says the vision has improved in left, and failed in right, but varies greatly and several pairs of spectacles are required.

Vision right equals $\frac{20}{100}$, with plus 1.25 equals $\frac{20}{40}$ Vision left equals $\frac{20}{50}$, with plus 1.25 equals $\frac{20}{20}$.

Operation under chloroform. The tendon of the rectus internal was carefully divided close to its insertion, without much attempt at loosening, but there was no movement of eye outwards. The rectus external was then cut and advanced by Argyle Robertson method, the retaining thread being quilted through the conjunctiva above and below the cornea to the internal side and then tied. The muscle was so much atrophied that the stitch gave away, and the thread had to be passed through the conjunctiva as far back over the muscle as possible. Correction to two mm. was obtained. In ten days made good recovery. A limited movement of eye outwards was noticed, with good movement in the other directions. The vertigo practically disappeared and the patient could walk without the aid a stick. Prescribed a prism of twelve degrees, base outwards, for right eye, combined with plus 1.25 in each eye, to be worn constantly.

Three weeks later, there was convergence of 4 mm., vertigo on closing left eye, but none with both eyes open; a tendency to fall forward in climbing a ladder, but good position of head and fairly steady gait.

CASE II.—N. H. C., æt. 47, referred by Dr. Brock, January, 1892, presenting the following history. In October, 1891, fell from a window, sixteen feet, to the ground, alighting on the side and receiving some injuries to the leg and thigh. Was unconscious for some hours. There was no bruise, pain nor soreness about the head. Is myopic; has worn glasses twenty years. Noticed defect in vision shortly after the fall; could only see objects clearly when looking upwards. In the forward and downward directions the objects became mixed up, lines were crossed, etc. If one eye were closed the crossing of the lines disappeared, but the lines slanted downwards and outwards in either eye. On examination, vision right equal $\frac{15}{200}$ and 1 sn. with far range; vision left equal ditto. Cannot read when book is held touching his breast, as lines become crossed.

Ophthalmoscopically, beyond cupping of the disk, with a myopic crescent, and large deposit of pigment at the scleral margin, the fundus was normal. There were no signs of hæmorrhage. Was unable to test the condition of the muscles fully, but there was evident limitation in the movement inwards, downwards and outwards; diplopia being produced in all directions by a prism of two degrees.

Strychnine gr. $\frac{1}{100}$, with pot. iod. gr. $7\frac{1}{2}$, t.i.d., was prescribed, and when seen four weeks after, the condition was greatly improved. I have been informed since, that he now experiences no trouble with his vision.

CASE III.—D. K., æt. 17, referred in January, 1892, by Dr. Howitt. In November, 1891, was kicked on the forehead by a horse. A wound was inflicted on the left temple four inches in length, the bone being exposed and supposedly fractured. A few minutes after the left eye vision was noticed to be dull, and has remained so ever since. Vision right equals 15.15 and 1 sn.; vision left equals 5.200 and 12 sn., at three inches. Unimproved by glasses. The action of the external muscles is normal. Ophthalmoscopically, the pupillary action is sluggish, media clear, optic papilla pale, vessels are apparently unaffected, no hæmorrhages. Prescribed strychnine gr. 1.50, t.i.d. Have not seen case since.

These cases are interesting, because they exemplify what a variety of eye lesion may follow injuries to the bone or membranes of the base of the skull, gained by *contre coup* due to a blow on the head or other part of the body.

In Case I. the lesion at the base was sufficient to cause profuse hæmorrhage from the ear and nose, paralysis of the sixth nerve, irritation of the fourth ventricle as shown by the hydruria, an acute meningitis, and some weakness of the ciliary nerves. The first symptoms can be due only to a fracture of the temporal, probably of its petrous portion, for no stretching of the tympanic blood-vessels sufficient to cause profuse hæmorrhage, is possible without fracture of the bony arch. The sixth nerve may have been caught at its origin, in its course, or in the sphenoidal fissure as it enters the orbit. The first of these is the more probable, on account of the injury to the fourth ventricle, shown by the third symptom, and its close proximity to the petrous portion of the temporal.

The immobility of the pupil is difficult of explanation, as it is only associated with a limitation in the accommodation. Perhaps some fibres of the fifth, in or about the caserian ganglion, have been injured or pressed upon in the lesion to the petrous bone, upon the extremity of which the ganglion rests.

The lesion in Case II. was, I believe, wholly in connection with the external ocular muscles, the symptoms all being those which we find in connection with some muscular weakness interfering with full association in the movements of the two eyes, which produced a diplopia when the eyes were directed forwards or downwards, and hence a blurring in the type when he attempted to read Homonymous diplopia, associated with a tilting of the images outwards and downwards, is found following paralysis of the superior oblique muscles. The burden of the lesion seems to lie upon the superior oblique muscles, but there is evident weakness also in the action of the recti muscles, especially of the internal, external and inferior recti. Paresis of these muscles would be due to some injury to the trochlear and to the oculomotor nerves, and as the two eyes in this case were equally affected, we are forced to look to the brain origins of these nerves for the seat of the lesion, as otherwise, if the lesion had occurred in any part of the tracts more nearly adjacent to the eyeballs, there would undoubtedly have been more extensive damage, whereas the symptoms were comparatively slight.

The nuclei of these nerves lie in the floor of the sylvian aqueduct, close together, just beneath the corpora quadrigemina, and it seems reasonable to suppose that the fall must have caused a slight effusion or hæmorrhage in this locality, which pressed upon the nerves and caused the paretic condition.

In Case III. the pathology is difficult, for while it is no uncommon thing for loss of sight to follow a blow upon the head, especially if accompanied by fracture, still, opportunities for *post-mortem* examinations in recent cases are rare. In this case we have a pronounced amblyopia, with no optic changes to account for it, and the amblyopia is evidently due to some lesion of the optic nerve alone, for it is unaccompanied by paresis of the external and internal muscles; nor had the amblyopia been followed at the time of examination by atrophy of the optic disk, although I believe that such a change would now be found ophthalmoscopically. Blows on the head produce atrophies. This has been noted after injuries in the neighborhood of the supra-orbital foramen, and in two cases mentioned by Schweinitz, when there was no fracture of the orbital plates. Meyer speaks of this form of amblyopia as due to concussion, but cannot explain the *modus operandi*. Schweinitz says that traumatic amblyopia may occur after severe injuries to the head, especially in the occipital region.

The loss of sight was so immediate after the blow, that it would almost seem as if the force of the blow had caused direct lesion of the nerve between the chiasm and the eye — perhaps in the optic foramen—such as a fracture of the base at that point, wounding the nerve tract.

These cases are, I believe, of sufficient interest to justify being put on record, and I have offered them in the hope that, by this means, more light may be thrown upon the exact location of the injuries.

Reports of Societies.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

ANNUAL MEETING OF THE MEDICAL COUNCIL.

(Continued from October number.)

FIFTH DAY.

Saturday, June 18th, 1892, 10 a.m.

The Medical Council met in accordance with motion of adjournment, President in the chair.

Registrar called the roll. All present, excepting Sir James Grant.

Minutes of last meeting read and confirmed.

Dr. Geikie moved, seconded by Dr. Bergin, that the usual rule regarding notices of motion be suspended for the remainder of the session. Carried.

Moved by Dr. Geikie, seconded by Dr. Miller, that the Registrar be, and is hereby instructed, not to issue any more annual certificates to members of the profession on receipt of the annual dues unless they specially desire it, but give a receipt only. My entire object in making this motion is to remove a sentimental objection on the part of a great many of the profession; an objection which has been utilized by those opposed to the Council with great effect. I know absolutely that this is true. People may say it is foolish to attach any importance to a sentiment. I know I attach so much importance to the certificates that I threw my certificate into the waste basket; and the Council has no better friend than I. I would fight for it by night and day, week in and week out, month in and month out (applause).

It has been said that the Registrar may be compelled under the Act to issue new certificates; he can issue them where they are wanted, but I think it is better to adopt another policy and issue receipts only, and give certificates to any who wish to have them. The feeling is that an annual certificate is equivalent to a sort of dog tag, or a sort of a metallic plate with the number.

Dr Bergin—I submit this is out of order. We can not substitute a motion of this Council for a statutory enactment.

Dr. Geikie—I make the motion at any rate, and I think it is in order. Whatever conserves to the interests of this Council, and tends to preserve its vitality, and to draw the members of the profession around it in its defence, and for its protection is in order and must be in order.

The President—I think the better way is to refer this to the Legislative Committee.

Dr. Geikie—How can the Registrar then receive instructions ?

The President—Perhaps what you have said would be sufficient for the purpose.

Dr. Ruttan—I beg to move, seconded by Dr Harris, that whereas a number of offices and other rooms remain unoccupied and not rented in the college building that this Council instruct the Property Committee, subject to the approval and sanction of the Registrar, to rent all the rooms and offices forthwith to the best advantage obtainable, and that the property be insured in a responsible insurance company, at a rate most advantageous to the college.

In support of this motion, I would say these rooms are now unoccupied, and we had better rent them for something, and that forthwith; in a very short while there will be brought into the market a large number of offices connected with three buildings near here which are not yet finished, but they will be when finished thrown on the market, and we will be in a worse position then than now, and we had better secure tenants while we have the opportunity. Carried.

Dr. Campbell—I move, seconded by Dr. Bray, that the solicitor be instructed to prepare a form of contract with the *Ontario Medical Journal* Publishing Co., based upon the resolution adopted by this Council, in which the company shall agree to the following :—To prepare under the supervision of the Registrar, and publish a full stenographic report, etc.

Dr. Campbell.—I move, seconded by Dr. Harris, that the solicitor be instructed to prepare a form of contract with the *Ontario Medical Journal* Publishing Company, based upon the resolution adopted by this Council, in which the company shall agree to the following :

To prepare under the supervision of the Registrar, and publish a full stenographic report of the proceedings of the Council, and send a copy to each registered physician, and supply the Council with two hundred additional copies.

To publish the College Announcement, sending one copy to each registered practitioner, and two hundred extra copies to the Council.

To publish in their *Journal* all advertisements of the Council.

To give satisfactory guarantee for the performance of their agreement. Carried.

Moved by Dr. Bray, seconded by Dr. Bergin, that Thomas Wasson be appointed public prosecutor.

The Registrar read a letter from Thomas Wasson, and testimonials as to ability.

The President—While there is a provision that fines shall be retained by the Council, there is no provision if the fines are not sufficient to pay the expenses what shall be done.

Dr. Bray—The Council would have to pay the expenses. That is what it did before. Carried.

COMMUNICATIONS.

Dr. Pyne read a letter from Dr. F. C. Mewburn, which was referred to the Discipline Committee.

Dr. Bergin moved, seconded by Dr. Johnson, that Dr. H. H. Wright, Treasurer, and the Registrar, be a committee to meet once a month to consider the financial affairs of the Council, make suggestions to the Council as to the best and most feasible means of economy and retrenchment, and to report to the Council at the annual meeting, without any expense to the Council.

I move this motion, and suggest the name of Dr. Wright as that of the gentleman to be associated with the Treasurer and Registrar, because he is warden of this building, and an old member of the Council who takes great interest in our affairs, and who will give his time once a month to a conference with the Treasurer and Registrar, as to the best means of economy and lessening the expenditure to the Council; and give a report to the Council in addition to that which the Treasurer usually makes. Of course they will be advising with the Property Committee as to the best means of leasing the property, which is now bringing us no income of any kind whatever; and it will lessen very much the responsibilites of the Registrar, to have such advice from these gentleman and the Property Committee. Carried.

Dr. Bergin moved, seconded by Dr. Johnson, that the address of the President at the opening of this Council be published in pamphlet form and distributed to every member of the profession and to the members of the Legislature of Ontario. Carried.

Dr. Harris presented the third and final report of the Education Committee, and moved, seconded by Dr. Day, that the report be received. Carried.

Moved by Dr. Day, seconded by Dr. Harris, that the report be referred to the Committe of the Whole. Carried.

Dr. Geikie in the chair.

The report was read clause by clause.

In reference to clause No. 7, Dr. Harris made the following explanation: I have an estimate by which it is found we will give better satisfaction to the examiners and still save a considerable sum. Each examiner gets $20 for being present; it is on the same principle as the examiner's fees are fixed at the Toronto and Trinity Universities, it is a retainer for the examination. There are twelve examiners, and averaging them at 150 papers it would make $115 each. The Homœpathic examiner would receive about $40. He would receive much less than the other examiners because he has not so much to do as the others; that would make a total of $1,420; expenses about $300, making a total of $1,720.

The examinations this year amounted to $2,289 as against $1,720, making a gain to us of $469, the amount saved; and the examiners would be better satisfied with this arrangement, and it ought to be a more satisfactory arrangement with the Council, for the man is paid really for the work he does.

Dr. Rosebrugh—If it is not obligatory that he should be present at the examination will it be necessary for him to be there the ten days?

Dr. Harris—No. That is taken into consideration.

Dr. Harris moved the adoption of this clause of the report. Carried.

Dr. Harris—In explanation of clause No. 8, said the communication asked what we meant by the clause in our report which reads, "Each candidate will be required to prove he has carefully dissected the whole adult human body." I took advice of Dr. Primrose himself and Dr. Richardson. Dr. Richardson, one of the most able anatomists, I suppose, in the Dominion, made the following remarks before the committee: "The study of anatomy is best secured from requiring from the first year students a thorough knowledge of the osseous system, the dissection of the abdomen and thorax and upper extremities, leaving the remainder for the second year; I think it would be preferable not to insist on the dissection of both sides, because I believe it could not be done with that care and reading which are requisite." I think Dr. Richardson's words should have a great deal of weight with this Council.

Dr. Fowler—I regret very much the committee should have thought fit to diminish the amount of dissection required from students of medicine. I think it is one of the most important things connected with the study of medicine, required from our students; and I may mention that this is not the direction that they are going in Germany and in other countries where advanced views are held in regard to the study of medicine. In Germany I well know that the students in the first year are required to make themselves perfect in the dissection of the muscles of the human body. It is of great importance that this should be first attended to, because when they commence dissection first they are in a measure unable properly to dissect the finer structures of the body; and it takes a year, at all events, before they are able to dissect properly the nerves and the blood-vessels. Students will never have an opportunity in future life for dissecting, and I think the more attention paid to dissection during their course of study the better; and I think we should still maintain that students should dissect the whole human body twice, or, at all events, one side twice. I think it would be a backward step for this Council to take, to merely insist on students dissecting one-half the body once.

Dr. Geikie—This paragraph refers to the first year only.

Dr. Johnson—It says the remainder for the second year.

Dr. Williams—I regret I was not able to be present at the meeting this morning; the fault, however, was not mine, for I had no knowledge that there was to be a meeting, and therefore, I couldn't be present. I do not know that this matter would have been any different if I had been there; but I could at least point out, which I will do now, that it does not harmonize at all with our curriculum. We are pointing out what a student shall take in his first year, and what he shall take in his second year. As a matter of fact, we have no means of controlling what he shall take in his first year. We do not hold an annual examination; and when we say you shall do so and so in the first year, and do the other part in the second year, we are not in a position to control it at all. We do not take him up for examination until the end of the second year. How are we going to know, or what do we care, where he divides that work in the middle, as long as he gives us that whole work complete at his primary examination at the end of the second year. That is all we can control. As a matter of fact we have no control whatever how he shall divide what we shall do in the first or second year. The suggestion of Dr. Richardson was based entirely upon the curriculum of the Toronto University, where they hold an examination each year, and in that case they are in a position to say you must take so and so the first year, and we will examine you on that; but we are not in a position to do that because we don't hold an annual examination. At the end of the second year they can say we will examine you on such additional quantities in anatomy for the second year. We cannot do that now; we have to take up the whole subject the second year that we require in our examination, so that that does not harmonize with the curriculum at all; and I think it ought to be amended to bring it into harmony with our curriculum; according to that it would appear as though we intended to hold annual examinations—that is, for the first year and second year and so on, but we have no such arrangement in our annual Announcement, and I think this should be brought into harmony with that. I agree somewhat with Dr. Fowler, that just a little change in the wording, so as to allow it to be applicable to one side of the body, with the thorax and abdomen, would have covered the whole matter much better than the alteration that has been made, as I think this is throwing the matter entirely out of harmony with our Announcement.

Dr. Harris—I believe Dr. Williams stated this was taken up this morning in his absence, and that he had not notice of the meeting. He had notice of a meeting at 9 o'clock; and we waited, I think, half an hour before we went on with the committee meeting. I might also say this was not taken up this morning; it was arranged yesterday afternoon at the meeting, and we had Dr. Richardson here. I made a slight mistake in one word,—it should have said "it is recommended," not "required," as it would read better, I think; but I don't care how you word it, it is merely a suggestion.

Dr. Williams—At the meeting yesterday afternoon, as a matter of fact, I believe there was nothing decided on this matter; we simply made notes of what Dr. Richardson's views were, and certain other notes, and agreed when a meeting took place we should then harmonize this recommendation as far as we could with our Announcement. I don't know whether that was taken up this morning, but certainly there was a meeting held this morning, and I had no notice of that meeting, and therefore I was not present.

Dr. Britton—I cannot say I can fall in the line with the thoughts expressed by our learned President in this matter. I think it would be a very foolish thing to start any student out in the direction of doing such rough, careless dissection, as to dissect the first year for the muscles alone; in fact, among students in their school it is a by-word to talk of a certain student who is a careless dissecter, as one who is "going for the bone"; it would be about the next step to that to go for the muscles. There are two advantages that a student derives from dissection; the first is a knowledge of the topography, and the second is the training of his mind and the muscles of his hand and eye in the preparation for surgical work; it would be a great calamity, I think, that we should arrange it in such a way during the first year that a student would simply dissect, looking for certain structures, without taking into consideration everything that lies before him. We are assured it is an utter impossibility to secure material enough to enable students during the two years to dissect the whole body twice. I would move that clause 6 be interpreted by this committee to mean dissection of the one side of the head, neck, arm, and leg, together with the thorax and abdomen, any time within the two years.

Dr. Bray—I think the object of this Council is to make the study of medicine in all its branches more practical; and I do think anatomy is the foundation of the study of medicine; and I think if two years is not enough we should charge our curriculum and have them come up for their primary examination at the end of three years. I do not think you can get too much practical anatomy. It is a subject that they all dread at their examinations; and if that time is not sufficient for them to get it up in let the examination be held the third year instead of the second; but I quite agree with what Dr. Williams and Dr. Fowler have said, and I do not propose a first year student should on the head and neck, but he can take the arm or leg.

Dr. Britton—That is nearly as hard to do well. It takes nearly as long.

Dr. Bray—If you give him only one side he will not be perfect. He won't know how to do each. He will only begin to be proficient when he goes over it again.

Dr. Britton—It takes two months to dissect the head and neck.

Dr. Bray—That proves that two years is too short a time for a student to work up his anatomy. I was not there when this matter came up before the Committee, if it came up before them, and consequently I am in a position, although a member of the Committee, to take exception to it. I do not want to make it too hard on students nor on those who have to procure the subject, but at the same time, I want the study of anatomy to be thorough and practical.

Dr. Thorburn—I think there is rather a misunderstanding than any real dieffrence between the different members of the Council here about the importance of anatomy. We all claim it is of importance, the most important study in which a student has to be engaged, but we contend it is impossible to do the whole body thoroughly within a certain limited time; and therefore we limit what they do go over they shall know thoroughly. I have been connected with anatomy more or less for many years, and I know, and the experience of all teachers of anatomy is, that a student who hurries up and dissects and gets through too much, and likes to talk about it, is generally a very indifferent man; but the man who will work constantly and carefully is one that will learn his anatomy and who will keep that knowledge in his brain; therefore I support the amendment of Dr. Britton in that respect. Our instructions should be that one half of the head and neck and not less than an extremity,—a lower extremity, and the abdomen and thorax.

Dr. Harris—I think that Dr. Britton's recommendation is very like the report.

Dr. Britton—It is, except it may be awkward, that certain students may have the arm to dissect the first year and the leg the next year; it might be more satisfactorily arranged that John Brown, for instance, would have a leg and Henry James an arm, whereas Brown might be first year and James second year; we say here the upper extremity the first year and the lower extremity the second year, but I think it would be far easier for the demonstrator in anatomy to arrange the distribution of his subjects if we do not limit him down.

Dr. Williams—I will move that the clause read be struck out.

Dr. Harris—If you strike that clause out I presume that you intend to leave the old clause in the Announcement as it is.

Dr. Williams—If that is struck out then we will fall back on the clause in the curriculum; and then, if we are so disposed, we can amend the clause in the curriculum. If you strike this clause out then what you have is the clause in the curriculum; and when you are back to that if you think that clause should be amended you can then move to amend it. But I believe the clause in the curriculum is better than that recommended.

Dr. Harris—Students and teachers cannot understand it.

Dr. Williams—We can modify the clause so that they can understand it. When we strike that clause out we can make a motion to amend clause 6 in the curriculum.

Dr. Williams moved that the word "whole" be struck out of clause 6, page 14, Medical Curriculum. Carried.

Dr. Henry moves that the name of Dr. McKinnon, of Guelph, be substituted for the name given in the report (Dr. Small), an examiner in Materia Medica and pharmacy.

Dr. Williams—If you catch the run of this report you will see they are retaining all the old examiners. I do not understand there are any new ones made.

Dr. Harris—I may say also that Dr. A. A. McDonald is put on in Midwifery, instead of Dr. W. J. Wilson; there are two changes made.

Dr. Williams—The Council ought to know whether the changes are made for cause. If you put the bulk of the examiners back, the inference will be if you drop two men out it is for cause, but if you are making a general change then all men stand alike, but you should remember when you drop out a couple of men, and retain others that have been on equally as long, and some perhaps longer, it looks as though it was for cause.

Dr. Bergin—I do not think it is fair to the committee to say, that because we substitute two new names in the place of two who have been examiners, that we do so because we have lost any confidence in them or anything of that kind; we must not lose sight of the fact that a large number of these examiners (all but five) are appointed by medical schools, and consequently they nearly all come from Toronto or its near neighborhood; and the eastern part of Ontario thinks, at all events, that it ought once in a while to have a representative upon the Examining Board. The Homœopathic representatives and the representatives from the eastern portion of Ontario, fixed upon Dr. Small as a very able man, and one who would be competent to examine in more than one branch, and I think that we ought not to be deprived of proper representation upon that Board when we ask for it; and it is for that reason, not because we have any doubt of Dr. McKinnon's ability, not because we believe Dr, McKinnon did not examine fairly, and properly, and ably, because we believe he did; but we did think that in accordance with the rule of the Council that has been followed ever since I have been in it, and was the rule before I came to it, that two years, unless the Council thought proper to retain a man for special reasons longer, should be the limit of any man's place upon the Board of Examiners. I need not say that I sympathize strongly with the feeling expressed in the Council, not only this year, but during several years past, that when we had a Board of Examiners thoroughly competent, that we ought to extend tne period of their position as examiners during the entire term of the Council, five years; but we have no power to do that, and although we appoint these examiners a second year, we have to do it as we do with every other officer, make the appointment yearly.

Dr. Bray—With some of Dr. Bergin's remarks I agree, and with others I disagree What I think should be and has been the practice for this Council is to put on the best men they can get, no matter where they come from. If this can be done, I think it is perfectly right to give all portions of the Provinces representation But I take exception to Dr. Williams' remarks, that if we change one examiner we have to change the whole. I do not think that is consistent; and I don't think it would be in the interests of the Council to do so, for the reason that if you take off all the examiners you have an entirely new Board, and I think that would be very unadvisable to do, because they would be all new to the work; it is well to have some men on who are accustomed to the work. And if it was the custom to remove the whole Board every time we made a change, then I think there would be disorder and confusion. It is true that when a man if a good examiner he should be retained as long as we can retain him; and I don't think that Dr. McKinnon's name or the name of the other gentleman that was left off, was eft off for cause, but because we thought there were other men just as good; and instead of removing the whole Board of Examiners, we take off one or two, or two or three each year. I think that is the idea, and I think the best idea. I don't think Dr. Williams himself would think it a good plan to remove the whole Board and put on new men.

Dr. Williams—Dr. Bray misunderstands my remarks entirely. I didn't suggest that the whole Board be changed, but the fact occurred to me that probably Dr. McKinnon was not on that Board the longest of any man who was there and thought possibly if you were going to change because a man had been on for some time, and as Dr. Bergin says the change should be made in two years, then it looks reasonable you would start with the man that had been on the longest time; and if because one man had been on for three years it was advisable to change him, perhaps the same rule would apply to each other man who had been on three years. I fully agree with the idea that the longer a man is an examiner the better examiner he becomes; but while that is true, that has not been the rule of the Council. It has been looked upon as an honor to a medical man to have an appointment as an examiner; and it has been passed around, as Dr. Bergin says, about once in two years. If that rule is followed I have no special objection to it at all, but I don't think it looks right without an explanation that one man or two should be dropped out and others that have been on as long or longer not interfered with. It would have the appearance without an explanation that there might be cause. That was why I asked that the explanation should be given that it was not for cause but in the ordinary workings of the Council.

Dr. Harris—I wish to say in regard to the other chang, that he was not dropped out for cause at all. I believe the committee appreciates his work well, and so do the whole Council, but he has been there two years; and Dr. Orr did not express any special desire to have him retained. Dr. Orr would like to have seen him there, I have no doubt in the world, but he didn't ask the committee, as Dr. Johnson did. Dr. Johnson has a large constituency, and it was his desire to have a little change made and consequently the committee came to that conclusion. There was no fault found with Dr. Wilson any more than Dr. McKinnon.

Dr. Orr—With regard to some of the remarks dropped from the lips of Dr. Harris, I think I should be unfaithful to the duties I owe to my constituency if I didn't say I used my best endeavor to secure the replacing of Dr. Wilson's name on the list of examiners.

Dr. Harris—You did not come into the committee room as Dr. Johnson did.

Dr. Orr—I have not been in the habit in the past and I hope I shall not in the future, be guilty of interfering with any committee I am not placed upon. However I am pleased to hear the committee state that those gentlemen who have been replaced on the Board by others have not been replaced on account of any of their work not being good and quite satisfactory to this Council. I should have liked very much to have seen the name of Dr.

Wilson, of Richmond Hill, again placed upon the Board of Examiners. Dr. Johnson, who represents a very much larger constituency than I do, and who for some time, I think not since he has been in this Council, has not had the name of an examiner upon that Board, has named one now in the place of Dr. Wilson; owing to such being the case, though with much regret, I all owedthe name of Wilson to be withdrawn.

Dr. Henry—After having heard the explanations that have been made I beg to withdraw my motion. .

After the reading of the report Dr. Harris said, I have another clause that may be inserted in it, it is that the committee would respectively draw the attention of the Ontario Government to the fact that the supply of anatomical material is not adequate to meet the requirements of this Council in the study of anatomy and surgery; and that the defect would be largely if not entirely met by placing provincial lunatic asylums and all public institutions where persons are maintained at public cost fully under the provisions of the Anatomy Act.

On a motion to add that this clause being put it was declared carried.

The committee arose. President in the chair.

Dr. Britton presented the report of the committee of the whole that the Education Committee's report be passed and amended.

Moved by Dr. Bray, seconded by Dr. Harris, that the report be adopted as a whole. Carried.

Moved by Dr. Bergin, seconded by Dr. Logan, that Drs. Fowler, Campbell and Johnson compose the Executive Committee for the ensuing year. Carried.

Moved by Dr. Bergin, seconded by Dr. Henry, that the Legislature be asked to amend paragraph, firstly, of section 6, by adding the following words thereto, "that all such members shall be elected by the medical graduates of the said colleges and bodies duly registered under this Act, and shall be elected by ballot in the manner provided for the election of members resident in the several territorial divisions," and that this resolution be referred to Dr. Williams' committee.

Dr. Moore—Before that resolution is put I wish to say that I think we are making a mistake to pass any such resolution as that. What right has the Council to dictate to Toronto University, Trinity University, Queen's University, or any other university, how they shall elect their officers. We might just as well attempt to dictate to them how they should elect the members of the Council or the Board of Trustees, as to say how they should elect any officer of their institution. They have a right by this Act to elect a representative on this Council, and that they obtained many years ago; and if it had not been for the schools and universities combining at that time this Council, as has been clearly shown, would never have been in existence. And the regular profession only came in to preserve the balance of power between the schools, as has been justly set forth by the President. I think it is almost impudent to place such a resolution upon our record.

Dr. Geikie—It is waste time to put in such a resolution.

Dr. Harris—I wish to endorse what Dr. Moore said. And further I do not take much stock in it. I think it is probably an electioneering dodge.

Dr. Bergin—I ask this gentleman to withdraw that charge. He has no right to make such a charge to anybody as against anbody. I make this resolution in good faith. I believe it is a necessity for this Council to pass that resolution and to have such a change made by the Legislature. And I say it is not dictating to the universities as to how they shall elect their representative, but it is an expression of opinion on the part of the Council that the medical graduates of the universities shall have a voice and a vote each year in the selection of the representative of the University; and if I understand the way that the universities under this, if it should become law, would do it, would be by calling together a meeting of their alumni associations; and these alumni associations would recommend that such a gentleman should be elected by the members of the association; and no doubt they would carry out the direction of that association. All the same they would be elected,—

The President—I see one difficulty in this motion in that it seems to disfranchise some universities which have no medical graduates.

Dr. Bergin—Then they could not elect anybody.

Dr. Britton—So far as my own university is concerned, that of Toronto, I think the graduates throughout the country are perfectly well satisfied. Their views are expressed and their intentions carried out in a just and honorable way by those whom they have elected to their Senate. I think the University of Toronto knows fairly well what is its own business. I am not speaking from personal motives; I don't know that I shall ever be here again after my term is expired; it may be the policy of the Toronto University to let these honors go around; but whoever will be sent here I am perfectly satisfied that the University will use its best judgment, and it has at least as good common sense as this Council.

Dr. Geikie—I object entirely to this. I put a good deal of faith in Dr. Bergin in a good many respects; and I had so much faith I did not think he would recommend anything that is not capable of what you may call full justification. He would rob the Universities of Toronto, Queen's and Trinity, of their university rights to send members here; he would rob such a corporation as ours, which by a ballot vote sends me here; and as Dr. Britton says in his case they may perhaps next time send somebody else here, it may be so in mine. It would rob these bodies of all rights and privileges and would seek to confer the rights on a moiety of the graduates to the alumni association, a mere handful of people who could gather in the neighborhood of some city and elect somebody to represent themselves, disfranchising the universities; and not only disfranchising the universities but actually having themselves a double right because every one of these gentlemen as a practitioner has a vote in his territorial division now.

Dr. Bergin—But he has not in his university.

Dr. Geikie—I do not believe in robbing the universities, and I do not believe in putting a double vote into anybody's hands. The universities are entitled here to representation; and more than that, the very instant that such a suggestion as the one in this resolution would come before the Legislature that very moment every university and every body in the province would just go down to the Legislature and say: "Gentlemen, we protest against it;" and it would be simply no where. The fact is that if every one of these bodies did so they would blow it, I was going to say, to Jericho, and perhaps a great many miles further.

Dr. Moore—Just to correct one statement Dr. Bergin made, that it was to give an opportunity to the medical men who were graduates of universities to have a voice in the matter. They have a voice now. The University Council of Queen's is elected by the graduates; every medical graduate, if he choses to vote and pay his one dollar, has a right to and does vote; and they vote for the members of the University Council, and the Council have selected me; therefore I say every medical graduate in Queen's University has a right to vote for or against the representative of Queen's University.

Dr. Day—The motion is perfectly harmless. It does not amount to anything. Nobody need get hurt at it a bit. In the first place I may say I don't agree with it; I am not in accord with it at all, and for this reason, that I have had some experience in it. It is admitted now that if the Legislature should make that change Ottawa and Regiopolis College would not be able to elect representatives; that they are off the list, would kill it before the Legislature the very moment it was mentioned. The Legislation before last that we went to the Local House on we tried then to have certain changes made in that very direction; I was anxious for it then and I am anxious for it now to a further extent, but the very moment we mentioned that matter we were simply told we need not mention anything of the kind. because the Government would not consent to it for a moment; that these colleges had rights that had been given to them long ago, and they really had become vested rights; that they had given away privileges for the sake of being represented on this Council, and the Government would not, by any means, interfere with that right in any way whatever. And if you go there now attempting to pass any legislation which will cut off Regiopolis, or any other University that has representation here now, you will simply get a storm about your ears that will astonish you.

Dr. Bergin—It is not the intention to take away any right from any university or any college. The question has been mooted over and over again; and the motion has been made that it be referred to the Legislation Committee. It is worth consideration; and the committee may possibly find some way of even carrying out this resolution, making such an alteration or suggesting such an alteration to the Legislation as would be approved of by the Legislature. I, for one, would not, on any account, deprive any Council or school of any of its powers or any of its privileges. We suggested merely an alteration in the way that the representatives of the schools shall be elected, because we believe it will commend itself to the good sense of the profession throughout the country.

Dr. Henry—I do not see where the objection comes in. As I understand the mode in which the representatives on this Council are appointed, the graduates of the various universities elect senators to the universities, and each of those bodies appoints a representative to this Council. I think if the graduates were to elect the members to this Council direct, it would be more in touch with the profession and the profession would be much better pleased.

Dr. Thorburn—I think if that resolution were passed the effect would be to do away with the Council of the College of Physicians and Surgeons, and these various bodies would then confer the degrees themselves.

Dr. Rogers—I brought a resolution bearing on this matter before the Council last night. The resolution which has been moved by Dr. Bergin and referred to the Legislation Committee bears very strongly on it; and I entirely approve of this resolution being sent to the Legislation Committee. I think the idea which Dr. Bergin has is that we are not in a position to dictate; we have to consider this, that at the next session of the Legislature, in all probability, there will be a bill brought by some malcontent of the medical profession to the Legislature, and it is for us to consider what is the best way to stop the matter being brought there; or, if they do bring it there, to formulate a scheme that will meet their objections and will not be out of harmony with the ideas of the Council. The whole idea of this is to preserve our Council from total annihilation.

Dr. Bergin—There is no danger of its annihilation.

Dr. Campbell—I simply wish to say it seems to me the less the Council does in the way of active interference with active legislation the better for it; and in a matter of this kind I think it is rather out of place for the Council to make any suggestions to any quarter as to interfering with those rights which corporate bodies have and which they surrendered in order to become a part of this body. It is a matter that should be left to these corporations, and I don't think this Council should interfere with it; and in any case it strikes me the better plan is to let the matter drop. Those vested rights that corporations have should not be interfered with at all.

Dr. Bergin—I don't think any one proposes to interfere with their rights; the first step to be taken in this matter, if any were taken, would be to consult with the senates of the universities. But that we may get through the business before us to-day, I withdraw my motion.

Dr. Miller—Universities would stand in a very much better position if they would be quite satisfied to send their representatives here without interfering in the election of territorial representatives; if the universities were to give a pledge that in the future they would entirely abstain from such interferences.

The President—There is nothing before the chair.

Dr. Miller—If there is nothing before the chair, I beg to move that this Council be now adjourned; and speaking to that resolution I would say, since the universities are so very sensitive as to their rights, that they should respect the rights of other people; and if they would give a pledge that they should be satisfied with the election of their own representatives, or the appointment of their own representatives to this Council, and would entirely abstain from interfering in the election of the territorial representatives, they would have less opposition in this Council.

Dr. Rosebrugh moved that the Council now adjourn for fifteen minutes.

The Council resumed its session, the President in the chair.

Moved by Dr. Bray, seconded by Dr. Henry, that Alexander Downey, chartered stenographic reporter, be appointed the official stenographer of this Council for the ensuing year.

I make this motion for the reason the Discipline Committee will be called on to meet on two cases in the near future, and it is well to have an official stenographer; Mr. Downey acted as stenographer for the Discipline Committee on previous investigations, and did his work very well indeed; and if we have an official stenographer he will be at our disposal whenever we call upon him. Carried.

Dr. Johnson—I do not know whether I am in order or not, but if I am, I would like to emphasize a matter that has been talked over in this Council very freely at this meeting, and which I think, perhaps, we all understand, but I want to go out to the territorials with no uncertain sound. I moved at the very beginning of this session of the Council, to have the fees of those members who were not in arrears, struck off for the coming year, but that was ruled out of order.

I want now to draw your attention to the fact, that in placing practitioners, who are registered at present under a two dollar fee, and giving them a certificate, or a receipt for payment of that fee, we are not placing them in a derogatory position; we are not licensing them as if they were dogs or hucksters, which latter was the word, I believe, principally used; but we are putting them on a footing with one of the leading educational societies of the country, the Law Society of Upper Canada. When the Law Society undertook this matter they put it in this form of notice, that every lawyer, whether in arrears or not, receives when his fee is due. We understand it is upon the basis of the practice of the Law Society that the clause referring to the payment of the fees and the removal of names from our register was framed. The notice I refer to reads as follows: "The Law Society of Upper Canada. Osgoode Hall, Toronto, July 21st, 1891. Special notice. The attention of solicitors is especially directed to the necessity of the annual fees being paid before the last day of Michaelmas Term, and to the provisions of R. S. O., chap. 147, secs. 16 to 21. A practicing solicitor who does not obtain his certificate before the last day of Michaelmas Term, is liable to forfeit the sum of $40, to be suspended for a period of from three to six months, and to the fines prescribed by the Act." That notice is sent out, I understand, to every member of the Law Society every year; and if he does not take cognizance of it he is suspended at once, as we propose now to do with all members who do not pay up at the date when their payment becomes due.

I particularly wish that this matter should be emphasized, because in the large territory like the one I represent, in which there are twenty to twenty-five per cent. of the whole of the members of the profession in Ontario, I wish the members to understand that this has been framed for their benefit—not merely for the benefit of the Council, but for their special benefit; and beyond that, of course, there is the fact that we must have a correct register. All that I think they thoroughly understand; and for that purpose I draw the attention of this Council to this matter at this stage.

Dr. Bergin—And the fees being paid once a year we would avoid that nasty practice of summoning members before the Division Court.

Dr. Johnson—There is also the fact by this we avoid that excessively distressing and rephrensible practice that existed before the present legislation came into force, of having a practitioner sued in his own practice in the Common Division Court for a matter of perhaps two or three dollars. The profession lost caste by it; friends of mine have told me that it was the worst feature that I possibly could imagine to have a professional man compelled to submit to a thing of that kind.

The President—I think it would be well for the Registrar to be directed to take a note of the remarks of Dr. Johnson, so that it might be entered, either in the notices to the profession or entered upon the proceedings in the *Journal.*

Dr. Britton presented the report of the Building Committee as follows:

Your committee beg leave to report that all matters affecting the building of the Medical Council, be referred to this committee now appointed, consisting of Dr. H. H. Wright, Dr. Aikins, the Treasurer and the Registrar, who shall have full powers to act and report at the next annual meeting of this Council.

All of which is respectfully submitted.

W. Britton, *Chairman.*

I might explain why this conclusion was arrived at: there were a number of matters referred to us in respect to repairs of a small nature, and having been referred to us only two or three days ago there has not been time to secure as many tenders as we would like to get. The different items are for kalsomining the walls, cleaning the ceiling, fixing the furnaces, and so on; and we did not feel justified in awarding any of these small contracts until we had given fair and full opportunity to get it done at the very lowest possible figure.

Moved by Dr. Britton that the report be received. Carried.

Moved by Dr. Britton, seconded by Dr. Harris, that the report be adopted. Carried.

Dr. Philip—I wish to give notice of motion that next year we may appoint a committee to consolidate these three committees—the Warden, the Building Committee, and the Property Committee.

Dr. Williams presented the report of the Committee on Legislation, as follows:

Gentlemen,—Your committee, who were requested to consider the advisability of consolidating and amending the Acts establishing and governing the Ontario College of Physicians and Surgeons, beg leave to report as follows:

That they have carefully considered the subject, and believe that as what may be called the constitution of the incorporated body, known as the College of Physicians and Surgeons of Ontario, is found in several Acts of Parliament, that it would be a decided advantage to all members of said college, if all the Acts and amendments were consolidated into one Act.

Your committee are further of the opinion, that when it is so thought advisable to consolidate them, there are certain minor amendments, where they have been found to be unsatisfactory in working, which should be introduced.

Your committee have no knowledge as to the period at which the Government will be making a general consolidation of all the Ontario Statutes, and cannot, therefore, advise as to whether or not it will be judicious to allow our Acts to await the general consolidation.

We would, therefore, advise that a small Legislative Committee be appointed, to have prepared under their supervision, a consolidated Act with such amendments as may be found advisable, and under the directions of the Executive Committee, and at such time as they shall consider opportune, whether at the general consolidation, or sooner, to have the same introduced and enacted into law.

All of which is respectfully submitted.

J. Arthur Williams, *Chairman.*

Moved by Dr. Williams, seconded by Dr. Moore, that the report be received. Carried.

Dr. Rogers—Do I understand that is to go before the Legislature next year, in order to consolidate it?

Dr. Williams—No.

Dr. Harris—I would like to ask what is meant by certain minor amendments to the Act?

Dr. Williams—That is somewhat a broad question and one a great deal more easily asked than answered. I might just tell you that as to one of the minor amendments, it has been found not very convenient, to say the least, in the working. By our Act we are limited to a certain number of examiners, I believe that number is nine; we find in practice that is not enough, and we evaded the law by appointing assistant examiners. And I don't think it is desirable, and I don't think any member of the Council would say it is desirable, to be obliged to evade the law in order to make it work satisfactorily. In the Quebec Act, of which we have a copy before us, they put in thirty-two examiners. I have no thought that we would ever require thirty-two examiners, or at least not for some time; and the suggestion has been made that an amendment be put in to allow as many examiners as the Council in their judgment may consider necessary and sufficient for the work. Another minor amendment, and yet a very practical one is this—it has merely been talked of, but not decided upon—under the Druggists' Act each member is required to pay $4 a year to the support of that institution, and to pay it by the first of May; but if he wishes to leave the country and to be gone one, two or more years, he sends a notice to the Registrar, and he is not required to pay any fee during the time; but when he wishes to come back again and enter upon his business, he sends a notice to the Registrar and he is re entered upon the lists of those who are paying, and that puts it in a satisfactory shape. Our Act in that particular is not satisfactory; when a man leaves the country there is no provision made for his sending any notification, or anything of that sort, but he remains on the register, unless he is dropped off; and when he comes back, the question may crop up whether he is holden for fees during all the time he was away, and when he was off the register. As a mattor of law, while he is off the register, he is not holden. It would make it much simpler and more satisfactory to everybody if, before he went, he could just say, "I don't wish to practise for a time, and I will notify you when I wish to be on again"; and then he is placed in his proper position, and there is no unpleasant feeling in connection with it; that is the second minor change.

There are a number of points in that direction; I don't know that I am authorized to go over any details; I don't know that I am in a position to do it if I were authorized, but I mention these are features of practical detail that might want modifying, that the committee would have to consider, and when they considered, submit to the Executive Committee; and in all probability send copies of a draft to members of the Council for their personal inspection and supervision, before it would be entertained at all; that is my idea.

Dr. Bergin—That is the idea of the whole committee.

Dr. Williams—There is no intention, as you will read by the report, to introduce to Parliament any consolidating Act, or any other Act, unless instructed so to do by the Executive Committee; and the Executive Committee are to consider the time when it is prudent and advisable. Whenever that may be, and whenever they tell that committee to introduce that Act, then they introduce it, and they are not allowed to move a step until that.

Dr. Williams moved, seconded by Dr. Bray, that the report be adopted. Carried.

Dr. Rogers—I rise to a question of privilege; I have been informed that during the heat of the debate yesterday, there were some expressions used by me which I have no recollection of making; and I would like very much to ask the chairman at the time what they were

Dr. Britton—I am not a stenographer, and therefore, I cannot reproduce *verbatim* Dr. Rogers' speech, but I think I can give you the sense of the expression that is used which was looked upon as unadvisable—there was a certain line of procedure advocated by a member of the Council; and at this line of procedure Dr. Rogers took exception; and he made the threat that in case this sort of thing was to be repeated, notwithstanding that we had active enemies who were doing their best to overthrow this Council, that he (Dr. Rogers) would feel forced to fall in line with the enemy and go to the Legislature.

Dr. Rogers—I have no recollection of making use of exactly such expressions as that. But I would like to state that I have no recollection of saying anything that was disloyal to this Council, or anything of that character, and if I did so I certainly wish to withdraw it; and I certainly had no idea of attempting in the slightest degree to ever do anything that would break up the College of Physicians and Surgeons of Ontario, or this Council; and I would be very sorry to be reported or considered in that way. I certainly last session, when the adverse legislation was before the Ontario House, did my best, by getting up petitions in my division in favor of this Council. I think it is safe to say no stronger petition could have been sent in favor of the Act, as it stands to-day, and of this Council (applause). For that reason I have very much pleasure in stating that if I used any expression which might be construed in any way as being disloyal to this Council I wish to withdraw it, and say that I did not intend to speak it.

Dr. Fowler—The explanation of Dr. Rogers is highly satisfactory, and must be received with great gratification by every member of the Council.

Moved by Dr. Williams, seconded by Dr. Henry, and resolved that Drs. Day, Bergin, Williams (the mover) and Britton be and are hereby appointed a Legislative Committee for the ensuing year.

Dr. Miller—I move in amendment to that the name of Dr. Henry, the seconder of that resolution, be substituted for that of Dr. Day, and that the name of Dr. Orr be substituted for Dr. Britton. Dr. Henry is a territorial representative and there are at least two school men and two territorial representatives on that committee.

Dr. Day—No, there are three territorials.

Dr. Miller—I am told there is one member of this committee who is, if not an official representative of the schools, closely allied with them.

Dr. Williams—In getting up this committee the first object sought was to get a committee that would not be too large and too expensive. The question came up how to keep it comparatively small, and yet to reach the different elements in the Council that we wished to reach; one that presented itself, talking about my own view of the case and not that of anybody else, was Dr. Campbell; the Vice-President, would have a right to a voice any way, so the homœpathic section is represented. Then I put on three members that I thought were tolerably familiar at least with the Act and the amendment, and that might have some knowledge in construing the Act. But I found when that was completed that we had not a single school man on the committee at all.

Dr. Bergin—The President has a right to be a member of that committee, and he is a school man.

Dr. Williams—I admit he has, and that in that sense he is a school man; I had not taken that in at the moment. However, it was suggested to me that Dr. Britton was a man right in the city; and he was representing a University; and he was not a teaching man; and upon that ground that that would make a reasonable committee; and that was why I added that name. I think all the sections now are represented; and I think the statement, coming from a member of the Council, that some Territorial man is under the wing or guidance or influence in some way of the school men, is something that ought to be explained to the Council, for there is no member of the Council who has a right to have insinuations thrown against him in that way without an opportunity being given him to justify himself; and if the gentleman who made the remark has any knowledge of the kind, he should give it to the Council and allow the gentleman who has the charge made against him to clear himself of the charge.

Dr. Bergin—There have been a good many serious charges brought against me in my time, but I don't think I was ever accused before of being exactly pulled by the nose by the schoolmen; still, perhaps I had better say distinctly that I don't think I am as bad as Dr. Miller thinks I am; and if you think that Dr. Geikie and the rest have too much influence over me, I have no objection to have my name struck off.

Dr. Day—There are only three territorial men on that committee, and I am one of the three; but I don't wish to make any explanation whatever; I have been in this Council several years, and I leave it to the Council to say whether school men or anybody else can either snub or rule me.

Dr. Miller—I have no intention whatever of insinuating or stating directly or indirectly that any one man was capable of snubbing or leading by the nose anybody else; but, in view of the discussions that have taken place during this session of the Council, I think it is quite right. There is a larger representation of territorial men in this Council than any other one class, and I think a relative proportion of these men should go on this committee; that is my reason for moving the resolution which I did. I think there are men in this Council who are old enough, and who have common sense enough and good judgment enough, if they chose to exercise it, to prevent them from being so very thin skinned as to take to themselves an insult or sneer or snub when there is nothing of the kind ever intended; and I think it is quite time enough for these gentlemen to ascribe any particular intention to other members when their intentions are more clearly stated than they have been by me. If I can get a seconder, I would beg leave to move that the names of the committee be Drs. Bergin, Williams, Orr and Henry. Of course, if no gentleman seconds my resolution it falls to the ground.

Dr. Rogers—I think, Mr. President—

Dr. Fowler—Do you rise to second the amendment?

Dr. Rogers—No.

Dr. Fowler—As there is no seconder for this amendment I will put Dr. Williams' motion.

On the motion being put the President declared it carried, thirteen members voting for and six against the motion.

Moved by Dr. Bray that the President now leave the chair, and the Vice-President take it.

Dr. Campbell in the chair.

Dr. Philip moved, seconded by Dr. Harris, that the thanks of this Council are due to, and are hereby tendered to, Dr. Fowler, the President, for his dignified, efficient and impartial conduct in the chair.

Carried unanimously by a standing vote.

Dr. Fowler—I thank you very much for the kind vote you have passed. My duties have been rendered easy and pleasant by the consideration of every member of the Council.

Dr. Bray moves that the President again take the chair.

Resolved that in accordance with the by-laws, the Registrar do now read the minutes of this last meeting of the Council, which was accordingly done.

The minutes were found correct, and on motion confirmed, and the President directed to sign the same.

FIFE FOWLER,
Pres. C. P. and S., Ont.

Selected Articles.

ADDRESS IN MEDICINE. DELIVERED AT THE MEETING OF THE BRITISH MEDICAL ASSOCIATION OF NOTTINGHAM.

In his opening remarks Dr. Cuming referred to the fact that, although the profession of medicine had lost somewhat of its repute in respect to learning, yet, at no time, had there been more assiduous cultivation of medicine, or its claims to public usefulness been capable of being so triumphantly indicated. He thought that its progress might be furthered still more if chemistry, botany, and natural philosophy were, to a great extent, banished from the curriculum, since, whatever their value, as developing habits of careful and accurate observation, it could not be denied that there are several subjects more closely identified with medical science which afford ample scope for wide and exact mental discipline. He asked whether as at one time it was necessary to defend medicine from the overweening pretensions of authority and prescription it may not now be necessary to shield it from the excessive demands of science, and he then proceeded as follows :

We may now leave the negative part of our subject, and turn to what constitutes the indispensable part of our equipment. Besides the so-called practical subjects—medicine, surgery and obstetrics—we should know all that can be learned about the structure and the functions of the human body. Our anatomy must be thorough, although it is instructive to remember, even in respect of a subject so absolutely essential as a groundwork of medicine and surgery, that a surgeon of no less eminence than Lawson Tait entered his protest in Birmingham against the unnecessary minuteness and elaboration of even anatomical teaching. For my own part I am inclined rather to adopt the standard of Huxley, that anatomy should be so learned that the body will be as if it were transparent to the eye.

Now, one cannot fail to be struck with the fact that among the subjects of greatest present interest there are two which seem to give evidence of distinct currents of thought moving apparently in opposite directions. On the one hand, we find an important part in pathological and physiological processes ascribed to minute organisms, the white corpuscles or leucocytes, which are apparently free from all direct nervous influence and float freely in the blood ; and, on the other hand, we find that the domain of the most highly-organized and differentiated part of the body, the nervous system, is being extended and increased. It seems as if attention was being divided not unequally between the simplest elements of the body and the most complex portion of its structure ; shared between little masses of protoplasm, which present but slight differentiation in structure, and the nervous system with all its complicated and refined activities and powers. And even, what is still more remarkable, we find a certain similarity in function suggested as existing between these seemingly widely different portions of the economy. It has long been known that unicellular organisms, amœboid cells, possess the power of choosing their appropriate nutriment and of rejecting what is harmful or useless to them. These facts have been for a considerable time familiar to naturalists, and their remarkable character has caused them to be studied with much interest. It has been abundantly shown in respect of animals higher in the scale, but possessing either no cerebral hemispheres, or only a rudiment of them, that they are capable of much and varied bodily activity in response to suitable stimuli. With regard to the human body, it has been also established that osmosis does not take so important a part in nutrition as was formerly supposed, and that a distinct selective power is exercised by the epithelial cells of the intestines, which, for example, pick out the globules of fat from the materials within their reach, and transmit them to the commencement of the chyle vessels. Now, the striking observations of Metschnikoff regarding the action of the leucocytes on microbes, the phenomena of phagocytosis, have naturally been received with more favor, owing to the knowledge we possessed of facts presenting some analogy with his observations.

The instructive discussion which took place in the Pathological Society of London during the earlier months of the present year has brought, more prominently than formerly, the facts on this subject before the profession in this country. In the main, I think, we are compelled to accept Metschnikoff's views as representing the present state of our knowledge, and accordingly we must accept phagocytosis, notwithstanding the opposition of some observers of great weight and authority, and notwithstanding some considerable objections. It seems then to be established that certain cells, of which the leucocytes are the most important, possess the power of attacking and destroying certain infective microbes when introdued into the body ; that these free, mobile and apparently quite independent organisms act in a manner highly important to the integrity and safety of the body at large, protecting it under suitable circumstances from injurious effects of virulent bacteria. So much, I think, may be regarded as fairly established, even should Buchner's views regarding the importance of antibiotic fluids in the blood be ultimately established. It is, however, with a certain degree of wonder, not unmingled with distrust, that we find something of the purposive character which has hitherto been supposed to be the exclusive endowment of conscious beings attributed to these minute, hardly differentiated masses of protoplasm, We learn that under the influence of chloral the leucocytes refuse their work and become anæsthetised. so that the bacteria have it all their own way. We are told that they show a liking for some substances and an instinctive aversion for others, and some facts are adduced regarding their mode of warfare which seems to point to a more than nascent civilization. One observer describes them as marching right up to the bacilli and attacking them, which seems analgous to the Napoleonic tacits in battle, while the lymphocytes are described as forming a second line of defence, a method suggestive of the more watchful strategy of Moltke. Altogether the demeanour and endowments of the cells open up a field for investigation both as regards cell action in itself and as regards its relations to the organism generally which contains much that is of the highest pathological and physiological interest. A new cellular pathology is being developed, differing widely indeed from the brilliant theory bearing this name, so long familiar to us from the powerful advocacy of Virchow, but agreeing with it in the important functions assigned to the ultimate elements of the body as independent factors both in morbid and in healthy processes, and also in representing them as being uninfluenced or as only indirectly influenced by the nervous and vascular systems in some of their essential activities.

Now, while phagocytosis is directing our attention with increasing interest to the minutest and most elementary constituents of the organism, on the other hand renewed zeal is being shown in investigating the complex problems which the nervous system presents to the inquirer. Even with regard to those more doubtful subjects which are in the borderland of legitimate scientific inquiry a revival of interest has taken place. Hypnotism and its allied states have long exercised a powerful fascination on a large portion of the intelligent public, and have been looked on with much curiosity, but always with a little suspicion, by physicians. Although not new these singular and striking manifestations have of late been more carefully studied, the methods of producing them have been more clearly ascertained, and one is glad to notice that, instead of being relegated to non-professional men, they have engaged the attention of some of the physicians most competent to conduct such inquiries, and most capable of estimating their results with precision and judgment. Whatever verdict may ultimately be passed on hypnotism there can be reasonable doubt that certain facts have been elicited which show that in the hypnotic condition profound and extensive modifications occur in the sensory and motor functions of the brain. Now, admitting much that has been urged against hypnotism; granting that it is likely to attract the attention of men who have a liking for the marvellous; that it can be practicised by men possessed of no scientific training and incompetent to deal with the most refined activities of the nervous system, and that it thus lends itself easily to charlatanism and imposture; granting that it may be attended with danger of a formidable kind, and also that its field of therapeutic usefulness is likely to be at best a very restricted one, and its effects probably only transitory; still, it is a subject eminently deserving of careful and profound scientific investigation, conducted with the most rigid precautions, so as to exclude intentional or involuntary deception. We do not need to be much concerned about whether, as has been stated, we have in hypnotism a condition akin to natural sleep, or whether it is in reality a pathological state related to hysteria. What is at present wanted is a clear account of the phenomena which are capable of being produced under its influence. If, as numerous statements aver, hynotic suggestion can be shown to in any degree affect processes of nutrition and the reaction to irritants, then some points of the very highest interest as regards the influence of psychical on physical processes will have been established. Most of us have been inclined to read with a considerable degree of scepticism the accounts of instances in which obvious physical changes have been stated to have resulted from nervous influence, especially when these changes have occurred in a rapid manner. Should the statements on this subject which have been made so positively and on the faith of apparently cautious and trustworthy observers prove to be authentic we shall certainly be compelled to reconsider our position with reference to them.

The opinion is very generally entertained that the diseases of the nervous system are now more widely diffused and more numerous than formerly. It is somewhat difficult to obtain accurate statistics on this question, and not altogether easy to ascertain their precise value, but some facts seem open to no serious question. In Ireland the proportion of the insane to the population has steadily increased. I owe to the kindness of the Registrar-General for Ireland the numbers of those mentally affected as shown in the census for 1891 as compared with that of 1881. The number of insane, including idiots, were in 1881, 18,313; in 1891, 21,188; an increase of 2875, although the population has diminished by 453,677. The proportion is 224 to each 100,000 of the population. Even allowing for the fact that emigration takes away, in the main, the healthy and strong, and that consequently this represents the proportion of insane to a much larger population than now exists in the country, still, it indicates a very notable increase. The reports of the Registrar-General for England show an almost uninterrupted increase in the mortality from nervous diseases. Some of this is, no doubt, explicable in other ways, but on the whole the evidence of statistics coincides with the general opinion among physicians that there is an augmentation. Whether this depends on the increase of causes tending to overwork and weary and exhaust the brain and nervous system we need not at present stop to discuss. Now, even those of thus who have no especial connection with treatment of the insane, find ourselves frequently brought into contact with questions regarding insanity. Apart from the mere granting of certificates, which, however, is attended with much anxiety and with heavy legal responsibility, there are the numerous minor forms of aberration in which it hardly becomes a practical question whether they necessitate restraint or not, and there are also the many instances in which general affections produce mental phenomena. Then we have the numerous cases of temporary insanity which are never known beyond the families of the sufferers, and the medical men to whom their care is entrusted, as well as the incipient stages of mental disease in which skilful management is of the utmost importance. It was, no doubt, in consequence of considerations based on these facts that systematic instruction on the subject of mental disease has been adopted by some of the examining bodies as a necessary part of the training of the practitioner in medicine, and has become a recognized portion of medical education. I may add that the existence of the Psychological Section of this Association is a further proof of the importance of this branch of inquiry to the medical practitioner.

Now, the study of medical pyschology alone is, to my mind, a very incomplete and inadequate preparation for comprehending the multiform disturbances of mental function and is even more inadequate in respect of either diagnosis or therapeutics, and in regard to the expectation of adding to our knowledge of cerebral diseases as regards either localization or character. I have long been of opinion that some knowledge of psychology proper—that is, of the science of the phenomena of mind in its normal conditions—is absolutely necessary. Without an acquaintance with the problems and methods of psychological inquiry it is impossible to observe and to describe adequately the phenomena of morbid mental states. In the investigations also of those conditions in which the disturbance of a single function is what is most manifest and striking, it is clear that a knowledge of the limits of differentiation of function must be of capital importance. It will be of value also to become familiar with the terms used in psychology, in itself a study of no inconsiderable difficulty and extent. In dealing with such questions as amnesia, aphasia, delusions and hallucinations, and other disturbances of consciousness, we are not only in the sphere of our legitimate activity and of our daily work, but we are touching, not indirectly, on some of the most interesting problems of mind. In examining the question we get into one of the main currents of modern thought, and have suggested to us some problems which have engaged the attention of many of the acutest intellects of ancient and modern times. Some psychologists refuse to accept any help from physiology, and fortify themselves in the citadel of introspection, declining all external aid. It is said by them that the comprehension of physical processes throws no light on psychical processes, and that these are absolutely heterogeneous. I am not concerned to defend the claims of physiology, which find advocates enough, but in respect of morbid conditions, when we find misery and despondency connected with defective digestion, perversions of the will and deceit attending on hysteria, emotional instability, causeless anger and childish tears and laughter accompanying the latter stages of chronic damage to the brain; when, to take a simpler and more transitory influence, we find alcohol leading to the well-known mental exhilaration which attends the early stages of its effect; when we find opium, in those accustomed to its use, producing such agreeable sensations that De Quincey could state: "Here was the secret of happiness, about which philosophers had disputed for so many ages, at once discovered; happiness might now be bought for a penny and carried in the waistcoat pocket; portable ecstacies might be had corked up in a pint bottle: and peace of mind could be sent down by the mail"; when we find all these and many kindred mental accompaniments of physical changes brought to our knowledge we have the strongest motive to attempt the analysis of the material lesion and of its modifications and varieties. Some of our greatest observers attach much moment to the entire and absolute denial of any relation of cause and effect in these events, and they insist on regarding the neural occurrence as merely concomitant with the mental occurrence. Now, we may grant at once that the nexus between them is as yet undiscovered and may be undiscoverable; but in investigating mental phenomena from the physical side we are doing something that can hardly fail to throw light on certain obscure questions, and we need not embarrass ourselves with any considerations regarding the real connexion or relation with each other of these concomitances. For my own part, I may be permitted to say that the progress of psychology is, I think, in a great measure to be sought for at the hands of the members of the medical profession. In physiology I am convinced that pathological and clinical observation have done more than experiment to elucidate function; and in like manner I have little doubt that the study of morbid and limited and incomplete mental and cerebral manifestations will throw a great deal of light on some of the most abstruse questions in the relations of matter to mind. It will be bringing into action the logical method of difference, the ascertaining the influence of the removal of part of the cause on the effect. Now in assisting in the solution of these grave problems I think our function as medical men is in the main a limited, although a highly important one. Our obvious duty is to collect such a body of facts as will afford a sure foundation for future generalizations. Besides the states of marked and more or less well-defined disease which enter of right into our nosological classifications, we have a wide field in examining into the influences of habit and heredity, the cerebral peculiarities which, more or less transformed, descend from generation to generation, constituting an "innate preparedness" for the development of particular morbid phenomena, the relations between vice and disease; and the question of when criminality implies merely pathological conditions.

I think we should avoid, at least for the present, the more ambitious philosophical attempts which have exercised, during many generations, a powerful influence on some of the highest intellects of our race. We need not attempt the great metaphysical questions of substance, reality, the nature of consciousness, the ontological nature of space and time, the essence of casual action and the like. The domain of the clinical and pathological observer is a humbler, but, we may fairly congratulate ourselves, a more fruitful one. Just as biology concerns itself with the manifestations of life and puts aside all theories regarding its nature and origin; just as, in fact, all sciences have to resolutely set aside at the beginning a certain number of unsolved questions, so we may fairly relegate these problems to other and more competent authority. Nor do I think we should gain much at present by attempting to form any wide generalizations. A working hypothesis is no doubt of the highest utility in an experimental science, even if it ultimately comes to need to be corrected or to be altogether abandoned; and, if the facts which come before us were capable of being called into existence or of being modified at pleasure, such a hypothesis might be necessary for our guidance. But we have to deal only with phenomena not susceptible of voluntary modification, and what we have to do is simply to observe them with accuracy and to record them with fidelity. In these observations the materialist, who regards mind as a form of motion in the brain cells, and the spiritualist, who looks on it as an immaterial principle underlying the phenomena of consciousness, although acting through the nervous system, can work together in perfect harmony, as the problem is to observe and analyse the phenomena brought before them. Even in this task there are limits set to our observations which it is not easy to surmount or evade. Physiologically it seems improbable that we shall ever be able to identify or to accurately estimate the results of mental activity in the shape of oxidation products of brain substance. The weight of the brain is about 2 per cent. of that of the body, and we can hardly doubt that in mental processes only a small portion of the cerebrum is employed at any given time. Besides, we have no measure of the relative degrees of intellectual exertion, and consequently cannot express them in terms of potential energy.

The nerve-cell must doubtless be accepted as the ultimate unit of the nervous mechanism and the nerve-fibre plexus as containing or constituting the channels of communication between these elementary units of cerebral activity. When we come to localization of function, with the exception of the motor areas and Broca's convolution and some further fairly definite areas concerned in disturbances of language, we have little which is well ascertained. If, as is hoped, we can make out that in the brains of the insane special areas are differently and disproportionately affected, it is not unreasonable to suppose that these areas may ultimately be ascertained to be connected with special functions. Charlton Bastian long ago expressed the opinion that the posterior lobes of the cerebrum are the most important for intellectual purposes, and this view has received the high sanction of Hughlings Jackson. On the other hand, Bevan Lewis lays down without hesitation the following principle regarding insanity. He states that while acute insanity may be regarded as a very general implication of the sphere of mind, and hence of a widespread disturbance of the cerebral cortex, its morbid results on the brain are decidedly concentrated on the motor or fronto-parietal section of the hemispheres. We learn from these conflicting opinions how little is definitely ascertained regarding the most important developments of cerebral activity. If I might indicate some definite lines on which medical observation might be of the greatest value in elucidating some unsettled problems, I should be inclined to name, among others, the aberrations and decay of memory. For this species of observation, no apparatus is necessary, and the opportunities are daily offering themselves and most abundantly to the busiest practitioner. Have we, as yet, any sufficient number of facts to justify the dissolution view of the decay of memory—that is, that in the decay of memory there is a certain definite sequence of events. The law of regression, as it has been formulated by Ribot, corresponds to the general principles of dissolution as a reversal of evolution which have been enunciated by Hughlings Jackson with his usual force and ability. The process of decay would then go on in a regular gradation, from the complex to the simple, from that which has been least thoroughly organized or incorporated into the brain to that which has been most so, from the least to the most automatic of our acquisitions, so that we first forget recent events, then intellectual acquirements, then the impressions which belong to the domain of the feelings, and, finally, how to perform automatic acts. All this, of course, depends on a supposition that a physical modification of some of the very many millions of cells of the cortex of the brain takes place originally in connection with the mental process which memory revives, this modification constituting the organic basis or anatomical substratum of memory. It is suggested that it is in this way that we can best comprehend the retention of impressions which are for a time absent from consciousness, just as it is the intercommunication of the cells which enables us to conceive how the impressions can be revived. But is this law fairly established? When we reflect on the enormous number of instances in which memory suffers notably, and, so to speak, pathological decay in age, it would seem easy to collect and classify such a number of facts as would put this doctrine on a secure footing. But I think this is far from being the case, and the number of exceptions seems to be so great that we may fairly regard this law as at present in this important sphere, unestablished. I have recently had the opportunity of witnessing a curious disturbance of memory in a young medical man, in whom multiple neuritis had arisen in consequence of much and premature exposure to cold after an attack of influenza. Besides the usual paralytic symptoms, his memory became greatly impaired. He gradually reached the point of forgetting the year and the month, became hazy about his personal identity, and was doubtful who his wife was, and where he himself was residing. *Nec domus nec placens uxor* was retained in his memory, but he still had a very fair recollection of the leading diagnostic and therapeutic facts about his profession. He had forgotten a great deal, but the platysma myoides was fresh in his recollection, and the differential diagnosis of fluid in the pleura from consolidated lung was retained firmly. These facts, I cannot but think to the no small credit of his teachers, were so organized in his brain that they resisted dissolution.

The phenomena of aphasia, which have been so much studied and about which so many curious facts have been ascertained, bring us in contact with a most interesting problem, the relations of thought to language. It is, I think, doubtful whether without words any continuous reasoning can be carried on, and it is pretty certain that in the absence of the symbol no abstract reasoning could take place. According to the fine illustration of Sir William Hamilton, all considerable progress in thought must be accompanied by a corresponding development in language. "You have all heard of the process of tunnelling through a sandbank. In this operation it is impossible to succeed unless every foot—nay, almost every inch—in our progress be secured by an arch of masonry before we attempt the excavation of another. Now, language is to the mind precisely what the arch is to the tunnel. The power of thinking and the power of excavation are not dependent on the words in the one case or the mason work in the other; but without these subsidiaries neither process could be carried on beyond its rudimentary commencement. Though, therefore, we allow that every movement forward in language must be determined by an antecedent movement forward in thought, still, unless thought be accompanied at each point of its evolution by a corresponding evolution of language its further development is arrested." Now, when we find that a special damage in one situation makes us lose the power of reviving the recollection of the word, although we recognize it when heard; that damage in another region so affects us that the sight of the word does not call up its mental representation, although we see the word plainly; and that lesions in a third region have as their result that the sound of a word will not call up the corresponding idea, although we hear the sound of the word distinctly; it is impossible not to recognize that here we have got a good way in making out the very mechanism of this potent instrument of thought, and it is difficult to see in what other way we could have arrived at a similar comprehension of these complex and refined activities. We learn from facts like these how great a part the observation of the dislocations and derangements of important functions can play in enabling us to better understand the scope and nature of the function itself. Few things are more noticeable in connexion with this subject than the amount of research which is being conducted on the subject of experimental psychology. In this direction much of the best work has been done in the Leipsic psychological laboratory, by and under the direction of Wundt, but kindred investigations are being made by various observers. The researches on the intensity and the time relations of sensation and of motor response to stimuli are of the highest interest. They have enabled us to ascertain the time occupied by mental acts, by the reproduction of impressions, by acts of association and by logical judgments. The amount and quality of work done in this direction justify the hope that psychology as a natural science will take its place beside physiology, and that the physical basis of mental activity will be more and more understood and elucidated. I have dwelt, at perhaps undue length, on this aspect of my subject, partly because it has a direct bearing on the relation of medical science to other branches of knowledge and partly because it furnishes a convincing proof of the claim of medicine to take a leading part in the elucidation of important pyschological problems.

Again, to take an instance of how medical experience can correct psychological speculation, we may, even if it be a little ungracious, select an example from the writings of a great thinker to whom many of us are under deep intellectual obligation—Herbert Spencer. This eminent psychologist attributes an importance to the circulation in the brain which physicians would be inclined to regard as excessive. He states that quickening of the circulation in the brain causes a rush or unusually vivid ideas and makes the memory more distinct than usual. He contrasts the illusions of delirium as exemplifying the extreme vividness with which revived feelings may rise when the cerebral circulation is excessive, and the loss of consciousness caused by cerebral anæmia as exemplifying the converse result. Now we have ample opportunity of knowing that anæmia is a fertile source of delirium, as the term "inanition delirium" indicates, and while there is much that is doubtful in that most obscure chapter of pathology which deals with hyperæmia of the brain, we know that it is at least as likely to produce somnolence and coma as it is to produce illusions. If the rapidity of the blood-current were so potent as Spencer supposes, physical exercise ought to heighten the receptivity of impressions, and there would be even a perceptible increase in the erect as compared with the recumbent position. As a matter of ordinary observation, it is found to be difficult to collect our thoughts when the circulation is much accelerated by rapid exercise, and hardly possible to carry on a train of reasoning requiring any considerable effort of memory. It has been urged by Schroeder van der Kolk that a free communication exists between the arteries and veins in the pia mater so as to allow a considerable portion of the blood, when the circulation has been quickened, to pass away over the cortical substance without entering its tissue at all, thus avoiding the disturbance which its rapid passage through the capillaries of the brain would cause. In this way, as he has put it, the storm sweeps over the brain without our perceiving it.

I have alluded to this comparatively trivial point to indicate how medical knowledge comes to have a direct bearing on subjects of wider and more general interest, and to show, also, how physicians, by bringing their special knowledge to bear in this way on the solutions of some of the most interesting problems which can engage the human intelligence, can best vindicate the dignity of their profession, which will thus have the fairest prospect of again forming an important factor in promoting the intellectual progress of the race. Nor even in a therapeutic sense will studies of this kind fail to bear fruit in enabling us to deal more rationally and more successfully with the morbid conditions of this important portion of the economy. It can hardly be denied that there is a tendency among the most enlightened members of the profession to attach a less overwhelming importance to the administration of medicinal agents, and to have recourse to the employment, instead of them, of what may be called physiological remedies for the treatment of the morbid conditions of the mind and brain. Light, air, nutriment, environment, the warding off of hurtful and the presentation of soothing impressions—these are more frequently and more successfully employed than the large class of nervines, of the remedial actions of which we are not so certain as we could wish. And when we add to these the so-called moral treatment, comprising amusement, occupation and the like, we have enumerated most of the agents on which we rely with the greatest and the most assured confidence. I do not wish to be understood as underrating the numerous and potent additions which have been made of late to our stock of nervine remedies. I like to know that they are being constantly added to, and that their actions are being more fully investigated and defined. I regard them in the light of a great arsenal of warlike weapons of the newest construction and the most perfect adaptation to their purpose, kept always ready for use and in a thoroughly efficient state of order and readiness. But as I regard it as the highest and most successful statesmanship not to be obliged to employ these powerful weapons in actual warfare, so we best vindicate the efficiency of our art by having recourse to our armaments only as sparingly as may be, confident, however, that at critical moments and in periods of active disturbance they can be employed with great and admirable effect.

It is a common and easy practice for writers to exercise their wit at the expense of the profession of medicine. Molière and Le Sage have condemned to immortality what was perhaps not a very gross caricature of some forms of practice in their day; but graver and weightier thinkers have lectured us on our shortcomings and have given us much well-meant advice. Now, there is nothing which gives us a higher idea of the ability of the earlier physicians than when we examine the opinions and theories which have been advanced by some of the most commanding intellects of the world in reference to medical subjects, and which are often ludicrous and absurd. The father of modern experimental philosophy, Bacon, brought a charge against physicians that they prescribed in too simple a manner and did not combine together a sufficient number and variety of drugs. It is but justice to say that a number of both ancient and modern therapeutists have applied themselves with no inconsiderable energy to relieve their profession from this reproach. The same great philosopher advised the employment of a peculiar bath to obviate the hardening effects of age, and he hoped by this means to promote longevity and to restore to the rigid frame of age the suppleness and freedom of youth. The bath was to consist of fresh blood, or if that were found loathsome it might be made of milk, butter, yelks of eggs and the fatter kinds of flesh, with oysters and wine, and sweetened with sugar or honey. This extraordinary bath was to be followed by various anointings and frictions. It is hardly to be wondered, when one reads this curious prescription, that Harvey, who was said to have been his physician, remarked of him, "He writes philosophy like a Lord Chancellor." Berkeley recommended, as is well known, his wonderful tar water as not only capable of remedying bodily disease, but as having a valuable influence on the understanding, an effect of matter on mind which we would hardly have expected from the great master of idealism. "Nor is it only useful to the bodies of infants," he says, "it hath also a good effect on their minds, as those who drink it are observed to be remarkably forward and sprightly." When we remember that at the time this passage was written Cullen and William Hunter were teaching medicine and anatomy we have no reason to think that the physicians of that day had much to learn from the meta-physicians. Kant, the most profound speculative genius of Germany, was strongly opposed to vaccination, which he called "the inoculation of bestiality," and he was enthusiastic about what he regarded as the great discoveries of Beddoes regarding the prevention and cure of consumption. One of these discoveries was the use of digitalis as a remedy for phthisis, which Beddoes regarded as opening out a brilliant era for humanity, as in his hands it cured a large number of cases.

Now, when we see the notions which existed on the subject of medicine among these great and highly endowed thinkers we can form some idea of the views which would in all likelihood find favor among the masses of mankind and the effects to which such views were likely to lead, and we can form, too, a fairly adequate notion of the superiority, on their own ground, of the contemporary leaders of medical science. We can see, too, what important services legitimate medicine has rendered to the world, even if it had only the negative merit of protecting mankind from disastrous and ignorant meddling. Physicians cannot accept the position of mere *curiori nature;* in presence of serious disease they must act with the best means they possess. Failing in this duty they would be justly liable to the reproach of Mephistopheles:—

"To grasp the spirit of medicine is easy,
Learn of the great and little world your fill;
To let it go at last, so please ye,
Just as God will."

We must always remember that it is by its utility to the world that medicine must ultimately stand or fall, but we must use the word utility in its widest signification as comprising, on the one hand, all the special activities of our profession in preventing or mitigating or removing human suffering, and on the other all its incidental advantages in aiding the development, and progress of human intelligence by taking its position along with other members of the group of sciences of observation. It is to be regretted, but I fear it is inevitable, that the study of the old humanities must be curtailed and must even in some measure disappear from medical education. Greek seems doomed passed recall, and it will perhaps be possible to say at some future day of the medical profession, as Petrarch said of Italy in the fourteenth century, that it did not contain more than ten persons who could appreciate Homer. And yet, in putting aside Greek, medical men will miss some of the finest products of the human intellect moulded in the most perfect form. Many of those who take an interest in the study of the subjects I have been imperfectly advocating will be glad to be reminded of what is surely one of the most touching passages in ancient literature, that in which the scene before the death of Socrates is related in the Phædo of Plato, which the illustrious old psychologist, after his fetters had been removed, began to bend and rub his leg where the chain had galled it, saying as he rubbed, "How singular is the thing they call pleasure and how curiously related to pain, which might be thought the opposite of it; for they will never come to a man together and yet he who pursues either of them is generally compelled to take the other." Our psychologists are to day still busily engaged in investigating the same problem.

Latin will make a harder fight to maintain its place, and will probably succeed in retaining it. If it should fail it will be impossible not to feel a profound sense of compassion for the physicians of the future if they are never to be admitted to the simple feasts at the Sabine farm at which educated men have been charmed guests for so many generations, or if they are never to feel the beauty and finish of the hexameters of Virgil. I do not suggest that grace of style or elegance of diction is to be regarded as of intrinsic value in medical writings—

Res ipsa ornari negat, contenta doceri.

Works on a subject so changing as medicine is, are destined to a comparatively brief existence, and any prolonged or anxious care devoted to their form and finish would be alike unnecessary and fruitless. The classical Latinity of Mead and Heberden has not saved their works from all but total oblivion. The same fate is destined, at no remote date, to overtake the eloquent periods of Latham and the charming lectures of Sir Thomas Watson—lectures which surely not merely early prepossession which makes me regard as among the finest English prose of the generation which witnessed their publication. But good writing satisfies the literary conscience of the author, and gives a not altogether undesirable pleasure to the reader. The pursuit of literature is everywhere being regarded as less necessary—and we must be of our generation—and from a utilitarian point of view it is impossible to give more than a passing regret to those branches of learning which have so long been regarded as the stamp and evidence of culture. What with unconscious irony are called the paying subjects, are brought more and more prominently forward in general education, and those studies which bear on professional training will ultimately prevail to the comparative exclusion of all others. But it must be also borne in mind that it is not by the mere accumulation of scientific facts that the physician of the future will gain his most valuable training. It is by those studies which develop and heighten intellectual energy, and aid in forming and promoting that flexibility and grasp of mind which enable it to deal with the varying problems which medicine presents in such abundance. It was remarked by Dugald Stewart that Locke owed some portion of his success as a psychologist to his medical training. "No science could have been chosen more happily," he observes, "to prepare such a mind as that of Locke for the prosecution of those speculations which have immortalized his name; the complicated and fugitive, and often equivocal phenomena of disease, requiring in the observer a far greater portion of discriminating sagacity than those of physics, properly so-called, resembling in this respect much more nearly the phenomena about which metaphysics, ethics and politics are conversant."

It will always also be of great aid to the physician to be able in dealing with those committed to his care, to recognize the influence on them of ideas of hope, of confidence, of endurance; to be able to deduct from their complaints what is the result of an impressionable nervous system and what of pure imagination; to solve, as nearly as may be, the personal equation. These capabilities will supplement beneficially the most refined and accurate physical diagnosis. We need not doubt that the multiform aspects of disease, following, as they do, closely on the track of all the numerous and diversified forms of human energies and activities, will afford ample scope for the freest exercise of the highest scientific faculty as well as for the employment of the most minute and patient observation. The tendency of the medicine of the future will no doubt be in the direction of greater specialization. Physicians and surgeons will devote themselves more and more to the cultivation of a limited portion of the vast and always widening field of knowledge. Medicine must adapt itself to the varying necessities and requirements of the world. It must prove itself capable of supplying the wants of a civilization rapidly becoming more complex in its development, and therefore more varied as well as more exacting in its demands. It must press into its service all knowledge, physical and mental, likely to aid in the furtherance of its mission; accepting the help of its sister sciences, but allowing itself to be dominated by none of them. It must be alike flexible in its methods, and steady in its aim; and must be at once cautious and aspiring, always sane in practice, while bold in speculation. But at the same time it behoves all those concerned in its guidance, or responsible for the instruction of those who are to become its members, to bear in mind its position as one of the main supports of the tripod of learning, as one of the great factors in the intellectual progress of humanity; being well assured that it cannot sacrifice any portion of its intellectual elevation and dignity without a corresponding sacrifice of its truest and most practical usefulness.—*British Med. Jour.*

THE METSCHNIKOVIAN THEORY OF VITAL RESISTANCE.

(*Continued from October Number.*)

When either of these substances is liberated in the organism by the destruction of the cells from any cause, all of the phenomena characterized as vital resistance immediately transpire. They are the most powerful cell-manure, and cause fever and intense cell-action of all kinds. Should this destruction of the cells, however, be carried beyond a certain limit, which may be designated the physiological reaction, a state of septicæmia arises from the large quantity of ptomaines present. It is under the stimulating influences of these powerful substances derived from the destruction of the cells that the surviving body-cells are enabled to resume their latent functions —to attack the micro organisms which are attempting to destroy, and to overcome them. That these effects do follow, and that these substances do possess these properties, is now generally conceded and capable of demonstration by any one. All that is required to see the processes of phagocytosis in operation is a lens, a little frog's lymph, and some anthrax bacilli. With these the process may be watched, and the cells can be seen taking in and digesting the bacilli. With these facts we are, in a degree, prepared to comprehend the details of the processes by which the organism protects against and arrests disease. In a process so general as this one, which must necessarily go on to a greater or less degree continuously, owing to the universal presence of germs in some form or other, it is objected that the cells could never obtain a special training and be able to manifest a specific exemption, which we know is the case with a number of immunizing diseases.

After an attack of disease conferring an immunity there is an exemption from one disease alone. All theories of immunity have, as yet, rested at this particular stage of their career, and none have shown their ability to pass it and carry conviction with them. How do the body-cells receive and retain a specific immunity? As already seen, the struggle between the cells and the micro-organism is between two living organisms, both possessing distinct individualities, functions, and products. The micro-organisms, just as the cells, produce and liberate life-products and waste, which circulate in the tissues of their host along with those of the latter's production. Thus far the cellular activities have been attributed to those products arising from the cells alone, though in every attack of disease the phenomena must transpire in the presence of and under the influence of both of these classes of products. The products of the germs *per se*, the leucomaines, are also capable of augmenting the vital actions of the cells, acting as stimulants, and causing all the phenomena of phagocytocis; and when this passes beyond the stage of physiological reaction, the same as that produced by the death of the cells through their products, there are high fever, intense constitutional disorder, and septicæmia. Now, experiments show that it is possible to induce the refractory condition from either of these two classes of substances when employed singly and alone. The tissue-juices, cell-extracts, or products—spleen, lymph-glands and testicle—when removed artificially from crushed tissues, are capable of producing, when injected into an animal, all the phenomena of vital resistance in an augmented form; and the culture-fluid products of pathogenic germs will, when injected, also bring about the same changes, both resulting in the refractory condition of that organism. In other words, that immunity communicated by the different substances and methods of preventive inoculations, or natural attacks of disease, is in reality all acquired by the same process and mechanism of the cells. Increased resistance from any cause, original or acquired, is but the expression of the augmented powers of phagocytosis of the cell. The destruction of the germ is always effected by this process, though the chemical influences of the intercellular juices and products doubtless assist to some degree. Even in natural immunity, repeated inoculations train and strengthen the cells, and make them destroy more completely (Chaveau). Ferran shows that the refractory condition becomes stronger and stronger the oftener the inoculations are used and repeated. This is true in so far that a susceptible and weak animal may be made to resist the most virulent and deadly germs. The experiments of Metschnikoff will explain the modus of these acquirements and show how any influence whatsoever, which is capable of reawakening the latent functions of the cell, may bring out and strengthen them so that an adaptation will transpire and a superiority will be the consequence.

The real effects of either of these substances will be the same, and a corresponding change in the function and structure of the cell will follow as the consequence of alterations in environment.

The laws of biology, as applied to the instances in point, show that, whenever from any causes there is an actual change in the media of an organism, there is always a reaction and consentaneous change in its structure. All structural changes find their expression in altered functions, since the function is but the directed energy of the properties of a tissue. In this way, the slightest change in the external media of a cell may give rise to the most complex results in its behavior. It may call the cell into increased activity—increased waste and repair—and thus become the origin of the widest variation. Thus, every change of composition or constitution in the medium must find a response in the cell, and the cell becomes modified by every such response. Again, every modification must be a selection determined by the laws of growth—the affinities of the cell—and every increment of function is preceded by an increment of substance. In the naturally acquired form of immunity we have, in addition to the stimulating effects of the tissue-extracts arising from the death of the cells, also those of the specific products of the microörganisms. It is in the presence of this *specific* factor that we find the special modifications causing a particular immunity, which the cells manifest in the future. It is an element in the conditions of existence of the cells, and it must necessarily have its effects in the final synthesis and representation of an acquired immunity.

The tissue-extracts or proteids raise the physiological activities of the cells to a state of tension, so to speak, where the slightest alteration in their media would produce a change and a registration, impression or modification, in the form of increased vital resistance, which, under less favorable or imperturbing conditions, would have been unappreciated and caused no change. This feature in the history of the elementary cell finds its analogue in the well-known physiological law of complex organisms, wherein an impression or registration is always retained in direct ratio to its vividness below a certain stage incapable of actual injury to the organism. It is during this intense stage of heightened vital action that the cells are influenced by the specific factor, and it becomes indelibly impressed upon their future existence.

In this process, we understand how it is that a vaccination "takes" best and ensures the highest degree of protection when there is considerable vaccination fever. Indeed, in all successful inoculations of attenuated viruses, this reaction, either in a marked and rapid or a mild and protracted form, is considered an essential part of all experiments. That the specific substance is the cause of the specific immunity may be illustrated still further by the experiments of Emmerich, Chamberlain, Pasteur, and others, who show, that while the tissue-extracts, chemical substances, and various internal and external influences will cause all of the phenomena of cell action, including chemotaxis, proliferation, and phagocytosis, when introduced into the tissues of an organism, yet this is only absolutely efficient or discriminative to a degree of producing complete and permanent immunity when the previous inoculations or attacks embraced the specific factor or substance of those micro-organisms with which the tests were made. In other words, that the various stimulants noted would only cause an increase in the general physiological powers of the cells; but they did not manifest a special or particular form of resistance, unless the specific substance had been used.

Without multiplying examples to corroborate this position as true, we are safe in saying that the cells of the body do become modified or developed through influence of environment just as all organisms, simple or complex, and that they retain these modifications as specific changes, since life itself is but the aggregations of external and internal media.

It is now in order that we trace those circumstances by and through which the cells preserve and transmit these modifications in the form of heredity. It is not necessary or practicable in an article like this to undertake the examination of the theories advanced in connection with heredity. We shall rest with the fact that there is such a process as heredity, and not undertake to discover or discuss its philosophy. Every one who has pursued embryological researches, or even read of them, cannot have failed to be impressed by that marvel of all marvels of an exceedingly minute portion of living matter, so small that a line would define it, passing by successive modifications into an organism so complex that a treatise is needed to describe it. Not only do the cells of the ovum and the spermatozoa originate and pass into a complex organism, reproducing the forms and features of its parents with their constitutional traits and peculiarities, but also the diseases, infirmities, tricks, and dispositions of generations and generations before. Consider what this implies. A microscopical cell, without the least trace of organs, not distinguishable from millions of other cells, nevertheless does contain within it the potentialities of a Newton, a Shakespeare, or a Napoleon. Each cell is *sui generis* a complete organism, and there can be no doubt that there is as much in this small structure beyond the reach of our senses or the microscope as there is in the vast universe around us beyond the sweep of the telescope. Hence it is no gratuitous hypothesis that the cell does receive and retain impressions.

Still how is it that these impressions are transmitted to the cell's successors as a special quality? The new or daughter cell, we should always remember, is not a *product* of the parent cell, but in truth is the old cell elongated or branched. The old cell divides and makes two or three cells. The same cell and substances which at first received the impress are still present and continue to manifest it. Were this not so, owing to the ceaseless change transpiring in the organism, traces of experiences—structural changes—would disappear, and there could be no memory, evolution, or progress of any kind. The cells receive, retain and transmit. They impart their *form* and substances to those which succeed them, and there is no gap but an elongation. That this is the case lies within the tangible experience of all in the formation of scar-tissue.

The original cells do not remain entirely and absolutely, but are constantly changing, and their places are being taken by others of their descendants. The injured cells retain and convey the mark of the injury to their successors for generations, and the "memory," modification, or molecular vibration is preserved and shown ever afterwards. Every kind of activity peculiar to living creatures or parts involves a change of structure, and the formation of the newly-generated tissue receives such an influence from the conditions under which it originates that all subsequent activity displays this impress. The same sum of external and internal environment, which once received a modification, now preserves it. The cell is but the expression of certain internal and external conditions of existence, and it alters with these.

Another and distinct class of data going to demonstrate this interpretation of the question of immunity, and that the factors of evolution and heredity are the true ones, is that found in connection with the clinical history, pathological anatomy, and sequence of the chronic or non-immunizing diseases. While it is true that the evidence derived from this source is of a negative character, still it is none the less convincing in its illustration of the importance and efficiency of phagocytosis and heredity in arresting and preventing disease.

Upon what grounds can we explain the feature of persistence or chronicity of a disease? If the proteids are set free in the organism, as before described, in all germ diseases, why is it that the cells in chronic disease are never carried up to a condition of resistance which would enable them to successfully antagonize and protect themselves against future encroachments from their etiological agents? If the micro-organisms are continually destroying the cells, and thereby setting free their constituents (as we know from the periodical fever and constitutional disturbances), which in turn cause the surviving cells to exercise their highest and best means of defence, how is it possible that they should ever become chronic, as in malaria, rheumatism, and other diseases? Why do the cells, when brought into direct contact with the micro-organisms, never achieve and immunity, but succumb time after time? Manifestly, to discover the causes for this failure to accomplish immunity, we must understand the negative phase of the subject. As a fact, experience shows that every germ-disease selects and locates upon some particular seat or tissue from which it lives, flourishes, and proceeds to produce its deleterious effects upon the organism attacked. Another noticeable fact is, that the type, nature, and duration of a disorder are always influenced and controlled by the tissues attacked. This is true in so far that all germ diseases may be divided into those which occupy the solid tissues and those which occupy the fluid tissue—the blood. Among those of the first class we find the exanthemata, such as measles, small-pox, whooping-cough, and others. In the second we have malaria, rheumatism, dengue, relapsing fever, erysipelas, and influenza. Following this division still further, we find that the disorders of the first are all, or nearly all, acute or self-limited and immunizing, while those of the second class are chronic and non-immunizing in character. Guided by these distinctions, we find that there is an anatomical and physiological cause and basis for these discrepancies as to duration and consequence in germ-diseases. With these facts before us, we are warranted in assuming that these features are in some degree dependent upon the peculiarities of anatomical seat. It is necessary, however, that we shall be able to refer this assumption to some standard of appeal, in order to show that it has other grounds than those of mere analogy or active imagination. Let us turn again to the life-history of the cell, endeavor to trace its genesis as an element in the blood, and to ascertain if it be possible to explain why a blood-disease has no power of limiting disease or of conferring immunity because the foregoing factors, as described, in the conditions necessary for adaptation, retention, and transmission of impressions are absent or imperfect in their use. To do this will be to establish the theory of Metschnikoff both positively and negatively, and to demonstrate its authenticity to be almost certain.

Physiology teaches that the white-blood cells, the amœboid, leucocyte, or phagocyte cells, have their origin severally in the spleen, the lymphatic structure, and the marrow of the long bones. It is from these sources that they arise, enter the current of the circulation, and finally pass out, under a number of circumstances, to become fixed cell-elements in the solid tissue. This being true, it is evident that the white-blood cell has an anomalous origin, in that it is the product of a tissue histologically different and possessing no morphological or physiological resemblance to it. In this respect it occupies a position analogous to that of the ovum and ovary, and to the spermatozoon and the testicle. In the illustrations given in the history, environment, and destiny of the cell, when capable of taking on modifications from influences in its media, we saw that certain conditions were necessary for its accomplishment, and that heredity or transmission depended upon certain conditions. In the chronic diseases the specific agents have been demonstrated in a number of instances to occupy the blood exclusively, and clinical history corroborates this. It is here that they exist, flourish, and produce their peculiar poisons which affect the organism. This being true, the only resisting or bactericidal agents or agencies, with which they are brought in contact, would be the white-blood cells and the blood-serum. Now, it is a fact that while the white-blood cells do multiply prodigiously and fight vigorously, as is evidenced by the chills, fevers, sweats, and general disturbance of the organism, still the germs multiply and persist, the disease becomes chronic, and phagocytosis is unavailing. The cells or leucocytes multiply and destroy myriads and myriads of micro-organisms, and yet the disease persists. How are we to reconcile this process with Metschnikoff's theory of phagocytosis and vital resistance being one and the same? It is because the second and essential factor of all superiority and permanent exemption is absent. The heredity and acclimating influences are absent in the white-blood cells as such. Its existence in the blood is of an ephemeral nature and it originates *de nova*, having neither pride of ancestry nor hope of posterity as a resisting or bactericidal agent in the blood. It can never inherit, acquire, or transmit a superiority, since the conditions of existence upon which these depend are entirely absent in its case. They live, flourish, and destroy as leucocytes in the blood; but in this transitory character they do not remain, but pass out into the solid tissue when they and their past experience could never be of any possible service to those who come after them in the blood. The blood is to them now a foreign and remote locality, and under the conditions of their new environment has no possible influence upon them or they upon it. The blood-cell has the power of phagocytosis, but in a medium where everything is of a fleeting and transitory character, no accommodation can take place when the source of the supply is unlimited and the means of defence momentary in effects. Hence, the conditions of blood-diseases are such that no immunity can ever ensue, and the disease will persist unless the causes are all destroyed, or avoided, or artificial aid employed. *Having in this manner shown that it is the cells which acquire, retain, and transmit a superiority, and wherein they fail to do so, and the reason why,* we may assume that a new quota of data has been added to the theory of phagocytosis. Thus, the entire series of facts and their interpretation are in keeping with the laws of development, evolution, and heredity, and the phenomena and philosophy of immunity are apparently explicable through them. Life, which seeks its own continuance, tends to repair itself without our help. It mends its spider's-web when it has been torn; it reinstates in us the conditions of health, and itself heals the injuries inflicted upon it. The wisest part of us is that which is unconscious of itself, and what is most reasonable in man are those elements in him which do not reason.—J. Wellington Byers, M.D., in *Climatologist.*

IMMENSE DERMOID CYST DEEPLY SEATED IN THIGH; EXTIRPATION; RECOVERY.

Very many, perhaps the majority, of dermoid cysts, other than those occurring in relation with the ovaries and their annexes, are met with in situations suggesting genetic relation with embryonic clefts, using this latter term in a very wide sense; but this explanation is not universally applicable, and the present is an instance of such exception, which, on account of its singularity, seems to deserve publication. A tall, stout, rather muscular brunette, aged forty-seven years, was admitted into Bird ward on Jan. 15th last, having an immense swelling in the inner part of the right thigh. It extended from the groin to one hand-breadth from the knee, and it had a transverse girth equal to if not greater than that of the thigh itself. Near its lower end the overlying skin in a circular area of several inches was red, and the subcutaneous tissues corresponding to this were matted and œdematous. In the middle of this red œdematous area was a small ulcerated spot from which oozed a turbid, milky, inodorous fluid. Except within this area where the wave was damped by the overlying œdema, this great swelling everywhere distinctly fluctuated. By its great bulk and position, the tumor embarrassed the patient much in walking, giving her a very awkward gait, in spite of which inconvenience she had continued to work until the skin inflamed and broke, which finally obliged her to seek advice. When lying on her back, as in bed, with her lower limbs extended, the inner part of the tumor covered her vulva and rested on the inner side and the front of the left thigh. It was observed that during active contraction of the adductor longus muscle the tumor became firmer, evidencing its compression by this muscle, and it was further noticed that the limb having been passively abducted, in which attitude the tumor rested flaccidly on the mattress, contraction of the adductor magnus caused the tumor to rise up off the bed and made it tense. At the upper and inner part of the tumor the adductor gracilis was traceable on to its surface; whilst lower down the front and inner part of the tumor was obliquely crossed by the sartorious. The finger-tips could be pressed down between the upper border of the tumor and the brim of the pelvis, so making it evident that the tumor did not extend under Poupart's ligament. The patient's account of the tumor was remarkable. It had existed from her childhood. In her eleventh year, the swelling being then as large as a small orange and at the "top of her thigh," her mother sought medical advice for it, and being told that any operation for its removal would be dangerous and could not be undertaken without risk to the child's life, she later exacted from her a promise that she would never permit any operation to be performed upon her. The patient had therefore uncomplaingly borne with the increasing inconvenience until at last her condition became unendurable.

Fluctuation was so apparent that of the cystic nature of the tumor there could not be any doubt; and the nearly equal distinctness of the percussion wave through the great swelling in every direction established its unilocular character. The character of the fluid oozing from the little opening described showed that sebaceous material was one of the contents of the cyst. The differential diagnosis was thus narrowed to the discrimination between a sebaceous retention-cyst, or wen, and a dermoid. But wens can only arise where sebaceous glands are present; they are therefore superficially seated in intimate relation with the integument; but this huge cyst was plainly seated under the deep fascia, amongst the muscles, and this circumstance favored the supposition of its being a dermoid. Its locality, the thigh, though unusual for a dermoid, could not be taken to exclude this kind, since, although, as already mentioned in numerous instances, dermoids show a distinct preference for the sites of embryonic clefts, into which it is conceivable that epiblastic tissues may become fixed and later give rise to cysts, yet other instances of dermoids have been met with where such mode of origin is less obvious—e.g., dermoids in the brain—and yet others have been recorded where such an origin seems quite excluded,—e.g., dermoids in solid abdominal organs as in the liver. That this cyst had a pelvic origin was very improbable, seeing that its upper border did not transgress the line of Poupart's ligament; but a pelvic communication through the obturator opening could not be absolutely excluded and the possible existence of such was hinted by the ascertained relations of the cyst from the pelvis through the obdurator foramen into the thigh appeared so extremely improbable that it was not deemed necessary to settle this by a vaginal examination, the patient being an unmarried person.

The practicability of a complete extirpation appeared highly probable, and since it offered the only prospect of relief, it was advised and was accepted by the patient. It was done on Jan. 17th, the removal of the cyst being effected through a long incision from the groin to the lower end of the tumor. The operation was a rather long one, owing to the close adhesion of the cyst wall to surrounding parts, and particularly along its outer side, where its close relation to the large vessels necessitated cautious dissection. At its uppermost limit, where the cyst had a leathery thickness and toughness, and which was presumably its oldest part, it was intimately attached to the periosteum of the front of the os pubis, just under the attachment to this of the adductor longus; and here, springing from the inner surface of the cyst, were two little tufts of black hair, Hæmorrhage having been arrested—a rather large number of arteries required tying—the wound was flushed with hot water and then with mercuric chloride, and its edges brought together with aseptic silk sutures. Three drainage-tubes were inserted. An attempt was made to keep the superficial and deep parts of the wound in contact by aseptic cushions and bandaging, and the whole limb was fixed by the aid of a long outside thigh-splint.

In spite of much care to secure and maintain an aseptic condition suppuration ensued at the end of a week. This seemed, probably rightly, attributable to much derangement of the dressings through the patient's great restlessness during the first days after the operation. The integumental incision closed in the greatest part of its extent during several weeks. On April 28th, the patient immediately, but troublesome sinuses persisted was sent to the seaside, whence she returned on May 12th, looking remarkably well. She then walked "with perfect comfort," and she said that her right leg was nearly as strong and able as her left. She has since resumed her occupation, cicatrisation of the entire wound has long been complete, and she says she has better health than she had enjoyed for years previously.—*Lancet.*

THE TREATMENT OF UNCOMPLICATED FRACTURES OF THE BASE OF THE RADIUS.—At the recent meeting of the American Surgical Association Dr. John B. Roberts, of Philadelphia, read a paper, arriving at the following conclusions:

1. Fractures of the lower end of the radius vary comparatively little in their general characteristics, because but one form is usual.
2. Muscular action has little or nothing to do with producing or maintaining the deformity.
3. Immediate reduction of the fragments is the essential of treatment.
4. Many of the splints devised for the treatment of this fracture have been constructed in ignorance of the pathology of the condition.
5. The ordinary fracture of the lower end of the radius usually requires no splint, and should be dressed with a wristlet of adhesive plaster or bandage.
6. When a splint is required a narrow, short, dorsal splint, fixing the wrist, is all that is necessary.
7. The method of dressing here advocated is the best because it annoys the patient as little as possible by avoiding cumbersome appliances, and permits free voluntary movements of all the finger-joints.
8. Passive motion is unnecessary until union has occurred and the dressings have been finally removed.
9. Good use of the wrist and fingers is early obtained, and the anatomical conformation is restored as well as, and perhaps better than, by other more complicated dressings.
10. Old fractures, which have been improperly treated by omission of immediate reduction, may with considerable success be subjected to refracture at the end of six or more weeks. At later periods re-adjustment may be possible only by osteotomy, which is a legitimate means of treatment.—*Am. Prac. and News.*

A NEW TREATMENT OF EXOPHTHALMIC GOITRE.—Independently of the classified methods, digitalis, the bromides, continuous current, hydrotherapy, belladonna, veratrum viride, and we will add, antipyrine (about 30 grains a day, associated with bromide of strontium 30 to 45 grains a day), Professor Dieulafoy has proposed the following treatment.

This treatment is based on the analogy which exists in a tuberculous case when suffering from hemoptysis or when threatened with the same. In these cases he administers ipecac., and under the influence of this medicament it diminishes in force and frequency, the erethism ceases, and consecutively the hemoptysis is arrested or prevented.

Or, in a case of Basedow's disease the primary indication is also to contract the cardio-vascular excitement; for this purpose M. Dieulafoy treats this affection according to the above principle. He associates ipecac. to the digitalis or opium, in pills composed as follows:

℞—Powdered ipecac., ... gr. $\frac{1}{2}$
Powdered digitalis leaves, . . . gr. $\frac{1}{3}$
Extract of opium, ... gr. $\frac{1}{4}$

For one pill. Four to six to be taken in the twenty-four hours.

He has treated by this method several patients suffering from exophthalmic goitre, and a considerable amelioration of all the symptoms has been the rule; this was especially rapid and striking in two cases; certainly no other treatment would have given similar results.

The effect of this medication is noticed in a general amelioration of the symptoms of the malady appreciable at the end of a few days; very marked after several months and equivalent to a cure. The only inconvenience of this treatment is in certain cases of diarrhœa, which persists until tolerance is established.—*Times and Reg.*

A NEW REMEDY IN DIABETES MELLITUS.—Professor Winternitz, of Vienna, recently drew attention to a domestic drug that he thought had been neglected. He related several renal cases that he had successfully treated by an extract made from the wild bilberry. His first experiments with the extract were directed towards the mucous membranes of the mouth, and finding it successful, extended his observations to the bronchi, bladder, and renal organs, where he met with equal success. He admitted having combined with the treatment the hydropathic applications, which were considered to have modified the avowed action and efficiency of the drug. Weil, of Berlin, has now added new testimony to the record of value attributed to this plant, in assuring us that it has acted in a wondrous fashion in apparently curing a young man of diabetes mellitus.—*N. Y. Medical Record.*

POTASSIUM PERMANGANATE AS AN ANTIDOTE TO PHOSPHOROUS.—At a meeting of the Royal Society of Physicians of Buda-Pest, Bokai (*Deutsche medicin, Wochenschrift*, Na. 47, 1294), as a result of chemical investigation and experiments upon animals, commended from one-fifth to one-third of one per cent solutions of potassium permanganate as an antidote in cases of poisoning by phosphorus. Phosphotus in the presence of porassium permanganatae is converted into innocuous orthophosphoric acid in the stomach, with the development of manganese chloride. Poisoned dogs thus treated were saved; untreated dogs died. Even one per cent. solutions of potassium permanganate exerted no injurious effect upon the coats of the stomach. —*Western Med. Rep.*

THE ORIGIN AND SEAT OF EPILEPTIC DISTURBANCE.—As the result of painstaking and long-continued observations, and of ingenious deduction, Horsley (*British Medical Journal*) concludes that, whatever the part first attacked by the epileptogenous agency, the principle seat of disturbance in a general or idiopathic fit in the cerebral hemispheres, and especially their cortical layer. The condition of the cortex during the paroxysm is one of congestion and not of anæmia. In all probability the cerebral cortex is actually the point of origin of the disturbance.—*Med. News.*

THE MEDICAL DEFENCE ASSOCIATION

MEET THE MEDICAL COUNCIL, WITH SATISFACTORY RESULTS TO BOTH.

At the request of the President of the Medical Council, a meeting was held, between the Legislation Committee of the Council and a Committee of the Medical Defence Association, in the Council Hall, corner Bay and Richmond Streets, Toronto, on the 29th ult., with the view of adjusting the differences that exist between the Defence Association and the Council.

There were present on behalf of the Council:—Drs. Fowler, Williams, W. T. Aikins, Geikie, Bergin, Johnston, Britton, Day, Thorburn, R. B. Orr.

The following members of the Defence forming its Executive:—Drs. Meacham, Sangster, Armour, White, Coburn, McLaughlin, Comfort, Eastwood, Hutchinson, Hamilton, Corbett, Bingham, J. Gunn, and Mitchell. Dr. W. H. B. Aikins, editor of *Ontario Medical Journal*, and Dr. Wylie, M.P., were also present.

In opening the meeting, Dr. Williams said, that suggestions for a settlement of the differences between the Defence Association and the Council, would be entertained by the Legislation Committee.

Dr. Fowler said, he had called this meeting together on his own responsibility, to see if a settlement of the differences could not be agreed upon, and if an agreement was come to, it would be carried into effect. On enquiry, he had found much dissatisfaction throughout the Province at the action of the Council on certain matters. He called on the meeting to elect a chairman.

On motion of Drs. McLaughlin and Armour, Dr. Fowler was elected chairman.

Dr. Meacham wanted to know how far the Council was prepared to meet the Defence Association on the lines of the Bill he had presented at the last session of the Legislature? If the Association received certain concessions, they would be willing also to concede certain points.

Dr. McLaughlin said there were two points on which the Defence Association were determined to have redress. These were the re-organization of the Council on a more representative basis, and the abolition of fees. They also wished the power of determining contested elections taken out of the Council's hands, and students' fees reduced. They wanted to know how far the Council's were prepared to meet them on these matters.

Dr. Williams replied, defending his action, and the Medical Act.

Dr. White—Does the Legislation Committee consider the present Medical Act perfection ?

The President—No.

Dr. White—Then how far will you go towards remedying these imperfections ?

Dr. Williams said there were differences of opinion as to what the so-called imperfections were. With regard to representation on the Council, the Legislature had forced representatives on it who were not wanted. The Council was unanimous in the opinion that there were schools represented that had no right to representation. The universities and teaching bodies should be represented.

Dr. Comfort said he was willing to compromise on other matters, but there was one thing that must be wiped out, that was the penal clause relating to the non-payment of fees.

He therefore moved, seconded by Dr. White, "That this meeting is decidedly of the opinion that Sec. 41 a, and the sub-sections thereto, of the Ontario Medical Act should be repealed."

Dr. White said the Defence Association would never rest until this clause was struck out of the Act.

Dr. Hutchinson said he had been sent to the Defence Association meeting from London to express the firm resolve of his fellow practitioners, more than 40, to have the whole fee and all such regulations abolished (applause.)

Dr. Britton wanted to know if the Defence Association thought any fee necessary. The old method of collecting was ineffectual. He thought it well to wipe the fee out altogether, but the Council was in debt and he didn't see how it could do without it until it was out of debt. When the property had risen in value the fee would not be necessary.

Dr. Sangster said the members of the Association were unanimously of the opinion, that this fee was not necessary, but that the legitimate assets of the Council were sufficient for its support. The Defence Association advocated the selling of the real estate in which the Council had speculated.

The property could be sold for...	$100,000
There was a debt of..........	60,000
This would leave............	40,000

This would secure a lease in perpetuity of similar premises to those at present occupied, or even of the present structure, if properly disposed of.

Dr. Williams said the property might have been sold some years ago for that amount, but not now, and there was no certainty the money would find profitable investment. The method of collecting the fee was considered by some as harsh, *but the method of dealing with murderers was harsh, and so was the method of dealing with theives harsh.*

Dr. White pointed out to Dr. Williams, *the amount of the fee* was not in question at all.

Dr. McLaughlan—Give us a representative Council, and it will be given all the money it wants (applause.)

Dr. Armour, in discussing the necessity of an annnal fee and retention of Sec. 41 a, for its collection, reviewed at length the financial statement issued by the Council, showing from it, that the necessity of the fee had been created by the Council by its investment in unnecessary real estate. In estimating the cost of carrying the building, he showed from the financial statement that :—

The building had cost.........	$96,390
After deducting the mortgage of	60,000
The investment account is.....	36,300
The interest on investment and mortgage at 5% amount to....	4,891
In addition to the interest account the cost of maintenance for the year was..........	4,510
Embracing caretaker, elevatorman, commission on rents, fuel, water, gas, insurance, repairs, taxes, and legal service, making the total yearly cost of carrying the building..	9,329
Now deduct from this the income from rents...........	4,099
Making the net cost of carrying the building last year.......	5,232

It was estimated that when the building was all rented, the income from it would be $7000, but as the cost of the maintenance for the past three years had increased about 36%, the income in the same time from rental, had not increased even to 6%. Even if the estimated rental was obtained, the cost of maintenance would so far exceed it, that to keep it up would be much more expensive than at present.

Referring to the receipts and expenditure of the Council for the past year, by omitting the annual fee and real estate speculation (both of which are deemed an unnecessary incumbrance), he drew attention to the fact, that the receipts alone from registration and examination fees amounted to $12,872, while the necessary expenses for the year (omitting building account) were $7,441, leaving to provide building accommodation $5,431 ; one-fifth of which should be ample for the purpose. The net cost of carrying the building, according to the statement of ex-president Williams, in his annual address was $302 ! while the financial statement of the Council shows it to be $5,232.

The Council has sent this address, containing this false statement, as well as others, three times to each member of the profession and at the profession's expense.

It ill becomes a person falsifying figures in this reckless way, to presume to lecture those who honored him with their confidence as their representative and the members of the Defence Association,' upon the principles of honesty, regarding the payment of an annual fee, for him to squander in a useless speculative enterprise.

The Council should free itself of its real estate, even if it did not bring more than the face of the mortgage, and save the $5,000 a year expended in carrying it.

This would remove the necessity of the recent resolutions of Dr. Williams' Council about the annual fee, and also permit the lowering of the students' fees.

Dr. Williams said he had not the opportunity of referring to the books of the Council, when preparing his address. The figures given, he had received from others (the Registrar and Treasurer) and he had uttered them, believing them to be correct. This fee was like any other honest debt, and honest men pay their debts.

Dr. McLaughlin said he was sorry Dr. Williams had seen fit to brand certain members of the profession as dishonest, because they differed from his views, and had refused to be assessed by a *Council over whom they had no control. Less than 100 men control the election of 14 members.* The other 12 members are elected by the 2600 men throughout the province. He would refuse to pay a farthing of fees, until the Council was made more representative.

If the profession were given control of the Council, they would gladly pay the fees, whatever they might be. In addition to taking fees from the profession against their will, the Council exacted from every boy or girl coming before them for registration, $100, whereas the cost for the same in New York was only $25.00, and in England $35.00. The Council was extravagant. It had spent illegally $96,000 in the building, on which there was a $60,000 mortgage.

The $36,000 investment would have furnished all the necessary building accommodation for years to come.

The members of the Council had paid themselves out of the funds, $3.50 a day hotel expenses, illagally. A journal had been subsidized, and will likely be run in the interests of the Council, with the funds of the profession. The Medical Defence Association would never consent to the fee being enforced in the obnoxious way attempted. The Council had taken into their hands a law, the enormity of which was not equalled by any other society in the Province or elsewhere.

Dr. Aikins, the Treasurer, said the finances of the Council were now in better condition than they had been for many years.

Referring to representation of schools in the Council, he said the schools had vested rights and would not give them up without a struggle.

Dr Bergin thought it was a great pity their dirty linen should be washed in public. The members of the Defence Association should consider that perhaps the members of the Council were actuated by honest motives. The building had been handed down to the present Council as a legacy from former ones, some of whose members were raising the outcry against it to-day. The Council was trying to meet the views of the Defence Association. Referring to the charges of extravagance, he said that coming from those who made those charges they were unparalleled nonsense, for those people never paid a cent to the support of the Council.

A voice—No, nor never will.

The Defence Association being asked, then set forth their demand as follows :—

1. That Sec. 41a, be repealed.
2. That the matter of annual fees be held in abeyance until the profession is properly represented in the Council.
3. That the universities with teaching bodies, viz., Queen's, Toronto, Trinity and Western University, have one representative each, and the profession seventeen.
4. Protested elections be referred to the County Judge.

The meeting of the joint committees then adjourned.

The Legislative Committee met immediately afterwards and agreed to the following :

1 We consent to 41 a. remaining in abeyance until after the next election and the electorate pronounce upon it.

2. We do not consent to suspend Sec. 27, but will still rely on the honor of the profession to pay the fee.

3. We will favor adding five additional territorial representatives, making 17.

4. We will not object to institutions, which neither teach nor grant degrees, being deprived of representation.

5. We are in favor of protested elections being referred to the Senior County Judge in the division in which the election took place.

Prof. Hare says that as a circulatory depressant, veratrum veride is a much safer remedy than aconite, as in large doses it is an emetic.

THE CANADA LANCET.

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TYPHOID FEVER.

During the fall months, typhoid makes its presence known in nearly every part of this continent, and almost every practitioner of medicine is watching the course of one or more cases of the dreaded malady at the present time. The etiology of the disease is still shrouded in mystery, although the researches of many notable scientists makes us hopeful that the specific organism, to which typhoid is no doubt due, may be isolated at an early date. For some time "Eberth's bacillus" did duty as the causative agent, but strong doubt has been expressed as to the correctness of the view.

The germ, whatever it may be, seems to exist for the most part in contaminated water supply, the dejecta of patients polluting the lake and river water of large cities, and soaking through the porous soil surrounding privies in country places, thus entering neighboring wells, where the drinking water is used. Thus we see the great necessity of boiling the liquid used at the present season, or whenever the disease exists in the locality. What is known as "sewer gas," in many cases looks to be the source of trouble, and frequently enters houses from some deficiency in proper plumbing, or sewer connections.

It is commonly supposed that sewage becomes oxidized and rendered innocuous after being carried a certain distance by running streams, but it is altogether probable that any organisms of disease, if present, are not destroyed in that manner. A peculiar, and scarcely to be explained, feature of typhoid, is its existence in our far Western country. The writer has met with dozens of cases, originating in cow-boy camps, mounted police barracks, ranches, and on the open prairie, where every possible apparent condition of cleanliness existed; where the water used was procured from large, rapidly flowing rivers, uncontaminated by sewage, the air constantly changing, owing to the wind storms which prevail in the country. The name commonly given to the disease was "mountain fever," and some practitioners declared that it was not typhoid, yet the cases all presented the characteristic progress and symptoms of that disease, the deaths which occurred being due to hæmorrhage, or peritonitis. Four perforations and five *post-mortems* made by the writer, revealed the usual pathological changes incident to enteric fever, namely, enlargement of the spleen, swelling and ulceration of the Peyerian patches, and solitary glands, all of which facts cause typhoid to present the appearance of a continuous malarial disease, the germ entering the air and water from decaying vegetable matter washed down by the mountain streams.

As to the symptoms and course of typhoid, any remarks would be superfluous, yet we cannot but utter a word of warning as regards treatment. Of thirty-five cases treated by the writer in Alberta, where nursing and careful supervision of the dietary could be made, every case made a recovery, exept two, in both of which antipyrine and phenacetin, was used, and only in moderate doses, compared with those usually given, therefore, we have come to the conclusion that neither of those drugs should ever be used, their powers of depression acting upon an already lowered condition of system, rendering them highly dangerous. This being a self-limited fever, everything depends upon the thoroughness with which the nursing is carried out. As to medical measures, nitromuriatic acid in small doses acts very beneficially to cool the parched mouth, the acidity causing an increase in the flow of the saliva. Tr. hyoscyami and camphor water, with or without pot. bromide, as a means of procuring sleep, after other means, such as sponging have failed, whisky or other alcoholic stimulants, when the pulse lags, and the tongue becomes dry and brown, but we do not believe in more than six ounces of whisky in the twenty-four hours, any more than that quantity only increasing the debility of the patient, the habit of ordering twelve to sixteen ounces of liquor in the day being sufficient to bring a healthy person to the verge of delirium tremens if kept up for weeks, as it is sometimes done in typhoid fever. With these few remarks and trusting our readers will realize the danger of too active medical interference in these cases of disease, we bring the subject to a close.

DIGESTIVE DISORDERS.

In the second volume of C. A. Ewald's work on Digestive Disorders, which treats of diseases of the stomach, he gives a formula for the administration of iron which seems to combine in a high degree the merits of ease, absorption, non-irritability, and inexpensiveness. He says that the most delicate stomach can assimilate it, as it is an albuminate of iron made by adding to an egg-water (white of egg, one part; water, five parts) enough tincture of the chloride of iron to make a two % to five % solution, thus.

℞—Tinct. Ferri. . . . . ʒj. = part one.
Aq. albuminosæ. . . ℥vi " 48
M. Sig.—ʒj p.c. ex. aq. sum.

This gives the tincture only in 1¼ minim dose. The expense of such preparations as Pizzala's Peptonate of Iron is thus avoided and the same good end attained.

In the same volume Ewald treats of rectal alimentation in an original way, to which his clinical experience certainly should give authority. He declares that peptonizing nutrient enema a is unnecessary and for patients of the wealthier class, orders them to be prepared as follows :—a pinch of best flour is cooked with a half cupful of a twenty % solution of glucose, and a wine-glassful of good claret added. When this has cooled, so as not to coagulate the albumen, two or three eggs are beaten smooth, with fifteen gr. of sodium chloride to each egg, and a tablespoonful of water added to them ; the egg is then poured slowly in and well stirred, the whole to measure not over half a pint. For the poor or in hospital practice, he orders three to five eggs beaten smooth, with fifteen gr. common salt to each, in five oz. of fifteen % or twenty % solution of glucose, adding mucilage of starch, if necessary, to thicken it. Whichever enema is ordered, it should be preceded by a warm water enema of eight oz. or so, for cleansing purposes. When this is fully expelled and the gut is in a quiescent state again, the nutrient enema is given, the patient being in the dorsal or left lateral position, and retaining that position for some time afterwards. He insists on the introduction being very slow; if possible by gravitation, and allows no unyielding metal or hard rubber nozzle to be used, as too irritating where a more or less prolonged period of rectal alimentation is in prospect. He also insists that the enema should be placed as high as possible in the rectum, and uses a large soft catheter or an œsophageal tube, with large openings, and carried well up. The glucose is a most rational and efficient substitute for the starches, which for the time being cannot be given by the stomach.

A MATERIALISTIC VIEW OF SEXUAL IMPOTENCE.

A paper on this subject was read by Dr. Bransford Lewis, of St. Louis, before the recent meeting of the Mississippi Valley Medical Association, at Cincinnati. After calling attention to the lack of unanimity, definiteness or precision with which the pathology of sexual impotence was viewed by the profession in general, each physician treating such cases with his favorite aphrodisiac formula, with a vague idea that the generative powers needed stimulation into renewed activity, the author offered what he claimed as more rational views of the subject, based on the physiology and pathology of the parts affected.

Physiologists, he said, taught that erection, that pre-requisite in the male organ for copulation, was established by an active increase in the amount of arterial blood flowing into the penis, together with a co-incident and abrupt decrease in the amount of venous blood flowing out of it; that the influences which stimulate to these processes come from the erigent nerves of the spinal genital center. Tracing these physiological sequences still further back, it was known that such erigent nervous influences originated in three different localities of the organism : (1) in the brain ; (2) in the spinal chord; (3) at some part of the periphery. Illustrations of these parts of the body, as such erigent sources were seen in (1) the man who gets an erection from viewing an obscene picture (originating impression in the brain); (2) the painter, whose spine is injured by a fall, and who gets prolonged priapism therefrom; (3) the masturbator, who arouses erection by friction of the penis, scrotum, etc.

Therefore there were three sources of primary origin for erection; and, conversely, if either of these was diseased, the organism was liable to lose it as an erigent center. And if the conducting mechanism became disordered, the same result was liable to ensue. Our aim, then, should be to study the conditions that produce disorder of these four parts of the economy. Using the classification of cases of impotence which he thought most convenient—that is, organic, psychic, and symptomatic—the author confined his discussion to the latter variety. Noting, but not dwelling on, the various debilitating influences, such as diabetes, consumption, fatigue from either mental or physical overwork, sedative medicines, etc., as factors in the production of male impotence, Dr. Lewis wished to bring into especial prominence the relationship existing between impotence and such causes as masturbation, excessive sexual indulgence, chronic gonorrhœa and other directly genital affections.

Since the prostatic urethra was the sensitive area, the focal point, of nervous impressions on the genital system; the seat of the pleasurable sensations in intercourse; and the point to which by virtue of its intimate nervous relationship with the various other parts of the genital apparatus, irritations from them were referred, it was the point which naturally bore the brunt of abuses or disorders of these parts. So that in cases of organic stricture, of prolonged or adherent prepuce, etc.; of sustained (especially ungratified) sexual excitment, of repeated masturbation, chronic urethritis, etc., it was natural to expect disease of the prostatic urethra as a result. And when it was known that disease of the prostatic urethra was, in turn, capable of so deranging the spinal genital centre as to deprive it of its power of sending out the nervous influence previously mentioned as inciting erections; in other words, that disease of the prostatic area was capable of depriving a man of his virility, then the key to impotence from these disorders and habits was furnished, and paths for appropriate treatment were supplied. The rational plan for therapeutic action, consequently, was based on, first, the removal of the habit or disease that was producing the disordered prostatic urethra; second, the remedying of the prostatic urethral inflammation, and in that way restoring the health and functioning capacity of the genital or erectile center in the spinal cord.

The mode of conducting this plan of treatment was detailed, resort being had to the use of antero-posterior urethral irrigations of astringent (preferably zinc) solutions; of deep urethral injections of silver nitrate solutions in progressively increasing strengths; the intermittent passage of increasing sizes of steel sounds; endoscopic treatment; the psychrophor, perineal douches, etc. In the author's opinion, it was manifestly improper to give aphrodisiacs in such cases, since they excited erethism by congesting the genital organs—an effect directly opposed to the one desired for an inflamed posterior urethra. The end aimed at was the restoring of the health of the affected parts rather than goading them into unnatural activity with unnatural stimulants.

THE MEDICAL DEFENCE ASSOCIATION OF ONTARIO AND ITS OBJECTS.

To the Editor of the CANADA LANCET.

DEAR SIR,—I have been asked to state briefly the objects of the Medical Defence Association. The Medical Defence Association consists of a goodly number of leading practitioners throughout the Province, among whom is to be found past members of the Medical Council, members of Parliament and others who have taken an active interest, and been identified with many of the most important movements in the progress of our profession in the past.

Necessarily when circumstances arise which justify the union of such a member of the profession for some definite concerted action, it becomes the duty of every one to make inquiry into the conditions which provoke such actions. To these our *confrères* are invited to enquire.

The objects of the Defence Association are to secure the removal of recent amendments to and other sections of the Medical Act, which they believe to be objectionable to the best interests of the profession in many ways—such as the old section No. 27, giving power to make a limited tax annually upon all who pass the Council's examinations, for that body's proper support; the recent action of the Council doubling this same disputed fee, and currrently known as the "double or quit" resolution; the issuing of a yearly license called the "Pill Pedlar's Certificate" to practice upon conditions which the Defence Association consider intolerable, as also the Council's action in placing in the hands of a single individual, one of its employees, the autocratic power, under certain circumstances, of cutting off the professional head of every practitioner in the Province.

The Defence Association also voice that latent conviction in the profession which has been forcing itself more and more strongly to the front every Council election, that the present number of elected members (12), the number 2,800 of us hope in, is too small, while 15 are sent by the votes of less than 80. These 12 are insufficient in influence or strength to rule the Council. When it comes to a question of Medical School interest against that of the general practitioner, they invariably succumb to the mixed blandishments and snubbings, the alternate hospitality and cool indifference, practised so skilfully on them. The result follows that the Council is ruled by the teachers sent there by bodies not representing a tittle of the interests of the profession, and often opposed to them; that it is desirable to increase the number of elected members from 12 to 17; that all election disputes be referred to the County Judge, and not to a member of the profession; that, however justified past Councils may have thought they were, in involving the profession in immense expense of the present building, or all the pressing need of funds, which the Council says exist, though the Treasurer states the contrary. It is claimed by the Defence Association such a condition could not exist, if it really does, if proper financial skill had been used. That the duty of this Council was not to attempt extorting from students and the profession, but to relieve them of the burden of this building, year by year growing more irksome, and cut down the expenses whereever possible.

They hold that the Council should have only one Confirmatory Final Examination; that tests of the progress of a student are nothing to the Council, and may be safely left to the teachers of medical subjects, who will take good care that students go fully prepared to the Council's final test; that so many examinations are needless, expensive and vexatious; that neither the public nor profession are interested in the elementary steps of the students career in this regard; that universities having medical faculties engaged in active teaching, send one of that faculty as its representative to the Council annually, so long as that faculty is actually teaching with a full staff; that this representative will assume in his person, the duties performed by the two representatives heretofore sent from university and medical faculty; that no one will be received from any Senate, not approved of by its medical faculty; that no teacher in any university or medical school, nor one holding any position upon any faculty, nor connected in any function with the staff of any school where medical students are being taught, shall *hold any office whatsoever* in the control of the Council. That the term of office for the elected members be reduced from five to three years. That all notices of motion relating to any change in existing laws or regulations, given at the final meeting before the term of the then Council shall expire, shall be published in an Ontario medical journal, and accompany every official notice of that election, whenever or however printed or sent to the profession, that the profession may have full notice of all such matters, and their opinions expressed by their votes at the election.

There are many other matters—the great tax on students for examinations, the needless number for the purposes of the public or profession, the degree. which the ex-President Williams states so explicitly, the graduates receive no value for; the functions of the various offices, the effort to make the Medical Council, the exact reflex and power of the whole profession, to do away with all factors of antagonism, which have made the Medical Council appear more like a tyrant in the eyes of the profession than a righteous and powerful protector. In the carrying out of these briefly expressed and other much needed repairs, all who believe it their duty to join hands with the Defence Association will be welcomed.

Believe me, yours truly,

Oct. 6th, 1892. J. E. WHITE.

To the Editor of the CANADA LANCET.

DEAR SIR.—Not having had an opportunity to correct the proof for my article in your valuable journal for this month, permit me in this way to make the needed corrections.

Page 42, 4th line from the bottom, "Fig. 8 is Fig. 7 after treatment," should read "Fig. 8 is Fig. 1 after treatment."

Page 43, for the word "stern" read stem. In 14th line from the top, for the word "bear" read bend, and follow by a comma.

Yours truly,
B. E. McKENZIE.

14 Bloor St. West,
Toronto, 10th Oct., 1882.

GOLDEN RULES OF SURGICAL PRACTICE.—*Continued—(Times and Reg.):*

HERNIA.—Never treat a case of vomiting without inquiring about hernia and examining abdominal rings.

Do not diagnose a "strangulated" hernia without first feeling, in the male, for each testis.

Never be satisfied with the reduction of a hernia without putting your finger fairly into and through the ring, and ascertaining by comparison of the two sides that no unnatural fulness is left.

Remember that no age is too young for a truss, and that no hernial protrusion should be without one.

In cases of strangulated hernia, if you are in doubt as to the advisability of operating, do not hesitate, but operate.

Do not hesitate to return the gut in herniotomy in all stages of inflammation short of gangrene.

Never procrastinate in cases which will certainly require colotomy.

JOINTS.—Do not be hasty with a knife in dealing with fluctuating swellings near a joint.

[There are changes in the synovial membrane which produce thickening and suppuration, which can with difficulty be distinguished from an external circumscribed abscess.]

Never forget that synovial tissue of thecæ embracing tendons, may pour out a considerable amount of fluid or even pus.

[The accumulation of fluid in a joint or in the layers of the synovial membrane, or in tendons and bursæ, rarely affect the integument. Therefore, unless there is external redness never use the scalpel hastily.]

Never probe the joint in clean cut wounds opening a joint, unless a foreign body is known to be lodged therein.

Always persevere with rest and counter-irritation in disease of the shoulder joint as long as there be pain produced by motion, but no longer.

[Too long confinements is apt to produce adhesion of the lower part of the capsule, and to permanently deprive the patient of the power to raise the arm.]

Always trace all sinuses near the shoulder to their source, because the tendons often direct the pus to some point distant from the joint.

Always consider the chance of subacromial bursal disease before you diagnose disease of the shoulder-joint.

Do not hesitate to aspirate a joint for diagnosis, but remember it is criminal to do so without strict aseptic precautions.

Never neglect to put all strumous joints at rest.

[Rest should be maintained for three months after all signs of disease has vanished, and active exercise must even then be very gradually renewed.]

Never neglect early movement in chronic rheumatic arthritis; never allow early movement in strumous arthritis.

(To be continued.)

PEROXIDE OF HYDROGEN IN GASTRIC DISTURBANCES.—A. N. Iakovleff (*St. Petersburg Inaugural Dissertation—Br. Med. Jour.*) has made nine experiments on eight subjects, of whom some were suffering from chronic gastritis, some from nervous dyspepsia, one from cancer of the stomach, and one from hyperacidity of the gastric juice, while the eighth was healthy. In all but two cases the patients were given a three per cent. solution of H_2O_2—four cubic centimetres before breakfast, dinner and supper. The patient with maglignant disease and the one with hyperacidity took a two per cent. solution, four cubic centimetres from three to six times a day. The following is a summary of the results of these experiments: (1) Under the influence of H_2O_2 the general acidity of the gastric juice and the proportion of free $H\,C_1$ invariably increase. (2) The proportion of lactic acid always decreases while in later stages of digestion the acid disappears altogether from the gastric contents. This phenomenon should be attributed to the well-known antifermentative properties of H_2O_2. (3) The digestive power of the gastric juice is markedly intensified. (4) In the case of hyperacidity (as well as in another case in the author's private practice) the administration of the peroxide was followed by a distinct aggravation of all gastric symptoms, while in all others, including that of cancer, marked improvement was observed—the appetite improved, the epigastric pain ceased, eructations and vomiting decreased or entirely dissappeared, the bowels became more regular, etc. The author further made experiments on frogs and dogs, his object being to elucidate the effects of H_2O on the circulation. The results agree pretty closely with those published by Guttmann and Schwerin, the essential point being that H_2O_2 is decomposed by the blood, and hence can give rise to gaseous embolism with its consequences, such as dyspnœa, dilatation of the cardiac cavities, etc. From these fact Iakovleff concludes that injections of H_2O_2 into the circulation for therapeutical purposes, as suggested by some authors, are absolutely inadmisable.

MEANS OF DETERMINING THE SEX OF THE FŒTUS IN UTERO.—Lassier (*Gaz. Médicale*) considers the theory of determining the sex by a fecundation just before or after the menses ridiculous. He says: "Before exposing my theory, which allows the accoucheur to determine the sex of the fœtus, let us establish first that in woman, as in all animals, there are two ovaries, of which one produces male germs, the other female germs, turn by turn, that is each in its turn. As the Creator has left nothing to chance, it cannot be otherwise. Besides this principle is amply proved by the ovipara, whose eggs are always paired. In the pigeon, the female lays two eggs, which hatch out a pair. With the canary and thrush the eggs are usually four in number, and are mated. If the eggs of the same hen are hatched, the sex of the chickens is equally divided, the same occurs in the case of the goose and turkey. This granted, let us apply the same rule to women, and we shall see that we have two means for the determination of sex. The woman emits an ovule every month, the ovaries produce each in turn; the germs are alternately male and female. A remarkable fact is that the period of gestation in woman is nine months, an unequal number. The same thing occurs in all uniparous animals; the mare eleven months; the cow, nine; sheep, five; in such a manner that while a female drops her young she sheds at the same time a germ of opposite sex. It is easy to understand why a woman who lies on her left side, has nine chances to two of having a boy, because in this position the ovary which produces the male ovules has more chances of its ovule being fecundated than the other, and *vice versa*. I have established that the procedure of ovulation alternates in the production of the sexes. This also permits us to determine the sex by calculation. If the woman is a primipara, the accoucheur has the *decubitus* for a guide. If it is her second or third pregnancy, he has only to find out the sex of the last child. If it was a male at term, the ovule corresponding to the lying-in was female, and so on. A woman becomes pregnant at the ninth month after delivery; if the last was a boy, this will be a boy also. If at the the tenth it will be a girl.

SANTONIN AS AN EMMENAGOGUE.—On April 10th, 1892, I was called to see Mrs. A. B., aged thirty-six years, and, says Dr. Bergey in *Therapist*, found her in great agony from uterine colic. The pains had lasted for several days, and gradually assumed a graver form, notwithstanding the various domestic remedies which she had employed. Hot water bags were applied and frequently changed. Hot drinks were freely administered and frequently repeated, but without affording any relief. The pain was so severe that it was necessary to resort to large doses of morphine to get it under control. In the meantime a ten grain dose of santonin was administered. The menstrual flow became fully established by the second day after administering the santonin, and the patient rapidly recovered. To avoid such serious crises at future periods, I prescribed several ten grain powders of santonin, one to be taken at night, at the first approach of the menstrual molimen. In this manner the suffering has been warded off at each subsequent period, and menstruation established each time without any disturbance, to the profound gratification of the patient. Mrs. A. B. is the mother of seven children, of highly neurotic temperament, and subject to these attacks on exposure to cold and dampness, or on becoming greatly fatigued. The attack described was brought on by exposure to draughts while over-heated. These attacks are, therefore, of the nature of suppressio-mensium, and the santonin relaxes the engorged uterus. I have used santonin in a number of other cases of similar nature, and in every instance with most happy results.

A SUBSTITUTE FOR DECALCIFIED BONE IN SENN'S DISCS.—Baracz (*Centralbl. fur Chir*). states that in experimenting with Senn's discs, the idea struck him that decalcified bone might be replaced by some other and more readily available material, which could be used by the practical surgeon without much preparation, and consequently with less trouble. After trials of numerous edible vegetables, such as potatoes, turnips, and carrots, from which sections of firm, flexible, and moist discs can be obtained, the author found that the most suitable substance for his purpose was afforded by the Swedish turnip. Sections of this vegetable, it is stated, form a reliable material for use in gastro-enterostomy and in establishing intestinal anastomosis, and one which can be more readily obtained and prepared than decalcified bone. That sections of a fresh turnip present a trustworthy substitute for decalcified bone is shown by the results of the author's experiments on animals, and also the success of an operation for gastro-enterostomy which he performed on the human subject early in May. The result of this operation, which was performed for the relief of carcinoma of the pylorus, had been very favorable.

LANCING THE GUMS.—In the *University Medical Magazine*, Dr. H. C. Woods makes the following statements about this procedure: Clinically, I am absolutely sure that I have seen convulsions, sick stomach, great restlessness, fever and various other functional disturbances in young children, immediately cured by the use of the gum-lancet, after the failure of various other well-directed measures for relief. Theoretically, I am in acord with Dr. Kirk, in believing that Dr. Forchheimer absolutely misses the point of the matter, by his failure to understand that the good achieved is not due to the local blood-letting or to the relief of the inflammation of the gum, but to the removal of the backward pressure upon an extraordinarily sensitive, and, at such times, congested nerve-pulp. As was long ago pointed out by Dr. J. W. White, at the period of eruption the roots of the teeth are yet incomplete. "Instead of the conical termination and minute foramen, which characterize a perfected tooth, the aperture is nearly as large as the root itself, and thus when the sensitive pulp composed of connective tissue, blood-vessels and nerves, is in a condition of irritation because of the morbid activity of the process of dentition—augmented vascular and nervous action—there may be produced a hyperæmia sufficient, possibly, to cause the protrusion of a part of the mass from the incomplete aperture of the root, giving abundant cause for extreme constitutional disturbance."

I have myself seen a seemingly incurable epilepsy in an adult permanently cured by the removal of a persistent milk or first dentition tooth. Amaurosis and various other conditions in the adult, are well known to be the result of irritation of the trigeminal nerve by faulty teeth. How much more evil is to be expected from teeth irritation in the child!

In conclusion, I reaffirm that whatever the theory in the matser may be, I am positive that gum-lancing is a most important therapeutic measure. It is essential, however, that it should be thorough and with the object of dividing the dense tissues that bind down the teeth.

SLOW PULSE.—Among the causes of slow pulse Dr. D. W. Prentiss, in *The Doctor's Weekly*, enumerates the following, saying that the causes which produce slow pulse may be classified as follows:—

1. Diseases or injuries to the nerve centres, producing either irritation of the pneumogastric or paralysis of the sympathetic (accelerator) nerves of the heart.

2. Diseases or injury of pneumogastric nerve, increasing its irritability.

3. Disease or injury of the sympathetic nerves of the heart, paralyzing them.

4. Disease of cardiac ganglia, by which the influence of pneumogastric nerve preponderates.

5. Diseases of the heart-muscle (degeneration), whereby it fails to respond to the normal stimulus.

6. The action of poisons, as lead or tobacco, either on nerve endings or centres. The poison generated in salt fish.

Also the poison of certain febrile diseases, as pernicious fever.

Another possibility is *malarial poisoning.*

A SMART HUSBAND.—*Stranger* (midnight)—"I should like you to go to No. 999 Suburb Avenue to see my wife."

Doctor—"All right. I'll be ready as soon as I can get my carriage. Wait and you can ride with me."

Doctor (two hours later)—"I can see nothing the matter with your wife, except that she seems pretty mad at being waked up."

Stranger—"Remarkable recovery, I must say. Here's your dollar."

Wife (five minutes later)—"Why in creation did you bring a doctor to see me?"

Husband—"The street-cars had stopped running, and it was cheaper than hiring a cab."

OSMIC ACID IN GOITRE has been employed by Auerbach. He used it by means of parenchymatous injections. The dose administered was five mill grammes and this was followed by a massage for fifteen minutes. After three weeks there was a diminution of one-half in the size of the tumor and the disappearance of the subjective symptoms.

RESORCIN is said to act admirably in cases of nausea and depression following a carouse. It is given in the dose of from five to ten grains in plenty of water flavored with syrup of orange peel, and may be repeated once or twice at intervals of half an hour. A single dose of ten grains is, however, said to be usually sufficient.

Books and Pamphlets.

A MANUAL OF OBSTETRICS. By A. F. A. King, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., and in the University of Vermont, etc. Fifth edition, 1892, with 150 illustrations. Philadelphia: Lea Bros. & Co.

This new edition makes the work a model of its kind, condensed so that every line tells, and apparently omitting nothing necessary in a scientific course of instruction in midwifery. The author is evidently a teacher. One is loth to encourage among students the habit of reading short works, especially on so important a subject as obstetrics; but in the 450 pp. of this text-book everything necessary is found for success in practice, and few if any would remain content without a larger book for reference after the ordeal of examinations is over. The chapter on version is most perspicuous, those on the mechanism of the various presentations admirable; the introduction to the anatomy and physiology of the subject is full enough for practical purposes, and the final chapter on obstetric jurisprudence excellent, though it would seem like a mixing of two subjects unually kept distinct in Canadian medical schools. Mention must be made of the peculiar conciseness and yet fullness of the chapter on the signs of pregnancy.

AN AMERICAN TEXT-BOOK OF SURGERY FOR PRACTITIONERS AND STUDENTS. Edited by William W. Keen, M.D, LL D., and J. William White, M.D., LL.D. Philadelphia: W. S. Saunders. 1892. Toronto: Carveth & Co. Pp. 1209. Price, $7.00 net, cloth; $8.00 net, sheep; $9.00 net, half Russia.

This work is an excellent one. Among the contributors are, Drs. Nancrede, Senn, Park, Pilcher, and others whose names are household words in surgery. We have had occasion to consult this book on several occasions since its arrival, and have always been well satisfied with the arrangment of the matter. It is up to the latest date. We gladly and conscientiously recommend it to both students and practitioners.

PICTURES FOR PHYSICIANS' OFFICES AND LIBRARIES. Prof. Billroth's Surgical Clinic at the Vienna General Hospital. Size, 24x32. Price, $2.00. William Wood & Company, Publishers, New York.

We have just received the above picture. It forms the last of a very interesting and beautiful series. They are exact copies, not photographs, of India proof engravings and oil paintings, painted on extra heavy paper, and suitable for framing.

THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE,
CRITICISM AND NEWS.

Original Communications.

THE WEIGHT OF THE BODY IN ITS RELATION TO THE PATHOLOGY AND TREATMENT OF CLUB-FOOT.*

BY A. B. JUDSON, M.D.
Orthopædic Surgeon to the Out-Patient Department of the New York Hospital.

I desire to present a few thoughts, of an extremely practical kind, relating to the treatment of talipes equino-varus. Beginning with congenital club-foot, it is well to bear it mind that there is a vast difference between a child recumbent and a child walking. While the child is in arms the case is yet free from the complications and difficulties caused by the falling of the weight of the body on the deformed foot. These twelve months, more or less, are the most important year in the history of the case, because, in this period, the foot is to be changed so that, when the child begins to walk, the use of a slight walking-brace, exerting only a moderate degree of force, will convert the weight of the body from a deforming to a correcting agent. During these months of recumbency, with the weight of the body out of the way, with all the tissues soft and formative, and the foot more than doubling in size with the growth of the child, there is every reason to expect to succeed in what we undertake, provided time enough be given to the case, and faithful attention to the details.

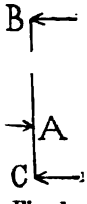

Fig. 1.

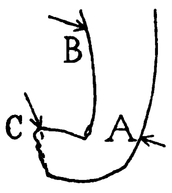

Fig. 2.

The apparatus which I have conveniently used to effect this reduction, before the child learns to stand, is a simple retentive splint which acts as a lever, making pressure on the outer side of the foot and ankle, at A, in Figs. 1 to 4, inclusive, and counter-pressure at two points, one on the inner side of the leg, at B, and the other at the inner border of the foot, at C. It is advisable to keep in mind that this simple instrument is a lever, because, if we know that we are using a lever, with its three well-defined points of pressure, we can make the apparatus more efficient than if we view it, in a more general way, as an apparatus for giving a better shape to the foot.

I use a little brace made of sheet brass, doing the work with a few simple tools. An advantage of doing the work one's self is that there is no room for doubt as to where the blame lies if the apparatus does not work well. Two curved disks, B & C, Figs. 3 and 4, are riveted to a shank, D, and thus is formed that part of the brace which applies the two points of counter-pressure, while, on the other hand, the point of pressure is brought into action by a third disk, or shield, A, which is drawn tightly against the outer side of the foot and ankle, and held in place by a strip of adhesive plaster, E, which includes the limb and the piece which connects the two disks, B and C. The disks are lined with two or three thicknesses of blanket, easily renewed, when necessary, with a needle and thread. These braces are so cheap and easily knocked together that it is nothing to apply new and larger ones, using heavier material for the shank as the child grows. In general, three sizes will be enough, the shanks being 12 gage $\frac{3}{8}$ in. wide, 14 gage $\frac{1}{2}$ in. wide, and 16 gage $\frac{5}{8}$ in. wide. The disks are conveniently made from 22 gage $1\frac{1}{4}$ in. wide. The rivets are copper belt rivets No. 13. A lip turned on the edges of the disks, with the flat pliers, gives stiffness to the thin brass and protects the skin from the rough edge. If more easily obtained, tin disks, light bars of iron or steel, and ordinary iron rivets, would doubtless answer.

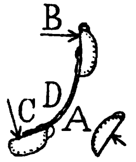

Fig. 3.

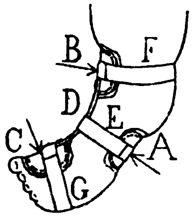

Fig. 4.

The brace is applied with three strips of adhesive plaster. The upper and lower pieces, F and G, Fig. 4, are simply to keep the apparatus in place, which they do effectively if ordinary gum plaster is used, while, by drawing the middle strip,

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*Read before the American Orthopædic Association, New York, September 21st, 1892.

E, tightly over the shield, and straightening the brace from time to time, the deformity is gradually and gently reduced. At each re-application the brace is made a little straighter than the foot at that stage. This may readily be done by the hands, and then the adhesive strip is to be tightened over the shield, till the shape of the foot agrees with that of the brace. After a few days, the brace is to be made still straighter, and again re-applied, and made tight till another point of improvement is gained. The brace is applied very crooked at the beginning of treatment, as in Figs. 3 and 4, and is straightened from time to time, and a longer brace applied as the deformity is reduced and the patient grows. It should be removed every week, or two weeks, and an interval of a few days allowed for freedom from the brace, when the mother is advised to manipulate the foot constantly, using as much force as she will in the direction of symmetry. Manipulating the foot during these intervals is of great importance, as cases have occurred in which varus and equinus have been entirely overcome by the mother's hand alone.

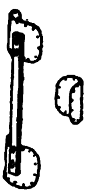
Fig. 5.

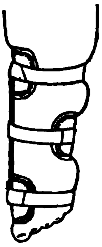
Fig. 6.

By this simple and prosy treatment, carried out systematically and without haste, or violence, or pain, the foot, unless it is a frightful exception, may, with certainty, be changed from varus to valgus. At the same time, the tendo-achillis is lengthened till the position of the foot is near the norme, or at right angles with the leg, as the result of manipulation and giving the brace from time to time a partly antero-posterior action. Figs. 3 and 4 show approximately the shape of the brace at the beginning of treatment, Figs. 5 and 6 when the varus is reduced, and Figs. 7 and 8 when valgus has taken the place of varus. The foot, in this latter stage, may not hold itself valgus, when left to itself, but, with almost no force, and with one finger, it may be pushed into valgus; and in this condition it must be when the child begins to walk, and then another stage of treatment begins.

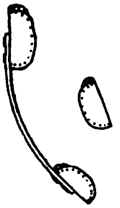
Fig. 7.

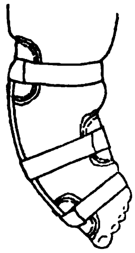
Fig 8.

When the patient begins to walk we have a new difficulty. It is now seen that the weight of the body, falling on the tender and ill-formed foot, will, if not properly directed, defeat all our efforts. Let us, for a moment, consider the mechanical environment of the human foot. In the first place, the corporal weight, which the quadruped distributes among four pedal extremities, falls, in man, upon two. Again, the small floor area covered by the feet and their slight structure, seem unequal to the task of supporting the towering frame above them, which in some cases almost resembles a pyramid resting on its apex. And when we observe the effect of active locomotion we see weight and momentum combine in an apparent effort to crush and destroy. And, furthermore, when extraneous weights are added and the strain is prolonged, as in the case of the burden-bearer among savage tribes, or the infantry soldier on a forced march, the endurance of the foot excites wonder. It is not strange that the feet are subject to ailments: to blisters, bunions, ingrowing nails, hallux valgus, hammer toes, loss of the arch, weak ankles, painful affections of the metatarsus, perforating ulcers, osteitis, and the varieties of talipes. The wonder is that they are not permanently disabled soon after walking is begun, and certainly when the adipose tissue of the body takes on the development which accompanies age and good living. The gourmand, Savarin, said that, among the works of creation, the design of the human foot was a conspicuous failure. Considering the immense weight carried by the foot, it is evident, however, that only the most perfect natural adaptation of mechanics has enabled this insignificant member to perform its superlative functions, and that great caution should attend all procedures having for their object its artificial re-construction.

It is also sufficiently evident that the correction of club-foot by mechanical means, while the patient continues walking, is a problem beset with difficulty. We have, however, a luminous ray of hope and encouragement in the observation that, in talipes varus, there is an important boundary line between deformity and the norme. If the foot is held in some way, now to be considered, on the right side of this boundary line, each step forces it in the direction of valgus, and the increasing weight of the child is a powerful force acting in the right direction, or away from varus, so long as the foot is held, though never so little, looking toward symmetry. It may be said that the child stamps his foot straight. If, on the other hand, the foot is held, or allowed to fall, on the wrong side of this line, though never so little, each footstep is a blow, driving the foot more and more into the varous position.

This point may be illustrated by the hand placed with its ulnar border on the table. If considerable pressure be made on the table, by the hand so placed, it becomes evident that there is a boundary line between pronation and supination. If the hand is pronated, never so little, additional pressure will force the palm into pronation, which represents valgus in the foot, and if the hand be supinated in the slightest degree, additional pressure will force the palm into complete supination, which represents varus in the foot.

By the application of this idea, the weight of the body may be made a benificent, instead of a harmful, factor in the progress of a case of talipes varus, and the walking brace should be constructed with this in view. It should be made of steel, and by an instrument maker. One of its functions is to act as a lever, but the leverage is applied not chiefly to overcome the deformity by direct force, as in the retentive brace above described, but to hold the foot on the right side of the boundary line above mentioued, so that the weight of body may straighten the foot, or overcome the varus in a direct and forcible manner without general or local inconvenience.

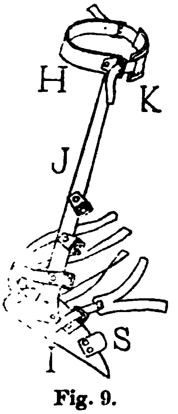

Fig. 9.

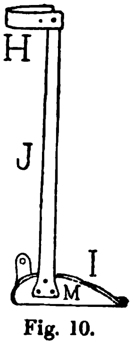

Fig. 10.

The walking brace consists, as usual, of leg-band, H, Figs. 9 and 10, foot-piece, I, and upright, J, riveted firmly together. A movable joint at the ankle should be discarded, as it undermines the lever by introducing an element of instability, and in this brace, serves no good purpose. Mild steel alone should be used, to facilitate alterations in shape, as point after point of improvement is gained, and to make easy the shifting of buckles and straps, as may be required, all of which may be done by the use of a few simple tools. The upright is to be on the inner side of the leg, as in Fig. 14. The upper part of the brace makes counter-pressure on the inner side of the leg, but it has another important function, in previously neglected cases, which is secured by the steel band passing across the back of the leg, to which are fastened two buckles for the attachment of piece of webbing, K, in Fig. 9, which passes across the front of the leg. The steel band should make no pressure on the limb, as its use is simply to furnish attachment to the buckles. A piece of webbing spanning the front of the leg in this manner, and carrying a pad, performs an important service in cases, like the one shown in Fig. 12, in which, from previous neglect, the varus has not been reduced before walking begins. It transfers a part of the weight of the body from the anterior part of the sole of the foot, where it interferes with the correction of the varus, to the upper part of the anterior surface of the leg, where it is powerless to interfere with the treatment. That the weight-pressure thus transferred is considerable, is shown by the callus and bursa, which appear where the padded strap crosses the leg near the tubercle of the tibia. This mechanical effect is similar to that of the brace, shown in Fig. 11, used in the treatment of paralysis of the muscles of the calf, resulting in talipes calcaneus.

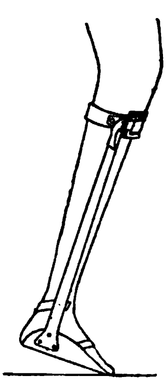

Fig. 11.

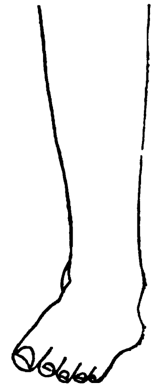

Fig. 12.

The upper part of the brace is also to be considered in another light, as follows: In previously neglected cases it is well to incline the upright 15° or 20°, or more, backward from the vertical of the foot-piece, as is shown in Fig. 9. Although correction of the equinus is postponed by this inclination of the upright, we are thus enabled to apply a better leverage against the varus, and when the varus is reduced, and the time arrives when the equinus is to be corrected, this backward inclination of the upright is to be lessened from time to time, till the vertical is reached, as in Fig. 10, or till the upright has an inclination forward, allowing the corporal weight to fall more and more on the anterior part of the sole of the foot, and gradually lengthen the tendo achillis. The vertical upright, Fig. 10, is to be applied at once to patients in whom the deformity has been corrected before walking begins.

We will now pass to a consideration of the other end of the brace, the foot-piece, which is to be made of sheet steel, ranging from 18 gage, for a child learning to walk, to 13 gage for an adult. It has the usual tread, L, Fig. 13, and riser, M, Fig. 10. The heel-cup is formed by a piece of webbing, N, Fig. 13, passing behind the heel, from the lower part of the upright to a spur, O, Fig. 13, which projects upward from the back part of the outer border of the tread. Viewing the apparatus again as a lever, for the forcible reduction of varus, in a previously neglected case, counter-pressure is made along the inner border of the foot, and on the upper part of the inner side of the leg while pressure is made by one strap, or more than one, riveted and buckled to the foot-piece and the upright. But one strap is shown, P, in Figs. 13 and 14. This will be sufficient in the case of a child whose varus has been corrected before walking begins, but in a previously neglected patient, in whom the varus has yet to be reduced while the child is active on his feet, two, three, or more straps may be added, as shown in Fig. 9, partly encircling the foot, ankle and leg, the positions of the buckles and the straps being where they will assist most efficiently in opposing the varus, and holding the foot in the best position to receive the weight of the body. These parts of the apparatus may be shifted many times, with advantage, in the treatment of a given case of unusual difficulty, and, in addition, a most efficient agent for applying continuous pressure is found in a strip of adhesive plaster, Q, Fig. 14, sewed to a piece of webbing, R, the plaster partly encircling the foot and ankle, with a single tail, or two tails, as may be required, and the webbing being drawn tightly and buckled to the inner side of the riser. This device does more than simply to increase the amount of pressure; it also keeps the heel down on the tread of the foot-piece, and, more important still, it gives the foot a rotation outward, and thus directs the sole of the foot forcibly toward the ground, in the best position for making the weight of the body a corrective instead of a deforming force. The riser of the foot-piece may also, in previously neglected and difficult cases, carry an ear, S, Figs. 9, 13 and 14, made of sheet brass, which is to be bent downward over the first metatarso-phalangeal joint, to prevent the inner border of the foot from overriding the edge of the riser. The foot-piece is to be lined with adhesive plaster, in several thicknesses if necessary, to prevent rust, and with a piece of leather fastened to the tread and spur with copper rivets, as shown in Fig. 10. In practice the details demand as much attention as the principles of treatment. The brace is to be applied over the stocking, the strap, R, passing through a hole cut in the stocking, and is hidden by the patient's trousers and shoe.

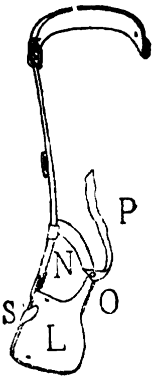

Fig. 13.

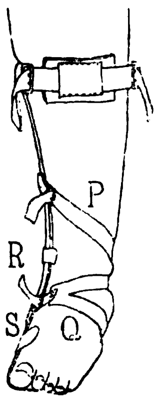

Fig. 14.

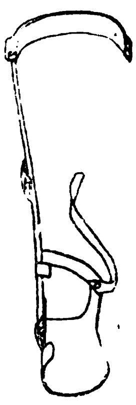

Fig 15.

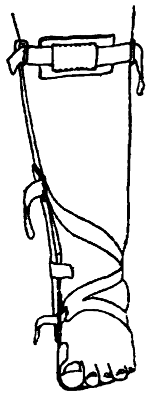

Fig. 16.

We will now consider the upright of the brace. It is a flat, tapering bar of mild steel, and when first applied to a previously neglected case, such as is shown in Fig. 12, should have a curve resembling that of the varous foot. The bar, though sharply curved, as in Fig. 13, should, however, be somewhat straighter than the foot, when the latter is forced manually into its best position. The multiple straps, shown in Fig. 9, should then be buckled and tightened daily till the continuous leverage has partly reduced the varus. The upright bar should then be somewhat straightened, and another point of improvement be gained, the patient in the meantime following his ordinary pursuits without interruption. In due time the upright bar, and the foot itself, will both be straight, as seen in Figs. 15 and 16, in other words, the varus will be reduced. The upright should then be bent, from time to time, in the direction of valgus, as seen in Fig. 17, and the persistent and gradual effort resumed until the foot has been pushed, or pulled, or pried, over the boundary line, into the domain of valgus, as seen in Fig. 18. These efforts would not be necessary if the varus had been converted into valgus before the child had learned to stand. In very badly neglected cases, the interference of the weight of the body with the treatment may be prevented by the recumbent position, or the use of a high sole on the well foot, and the ischiatic or axillary crutch, until the varus has been materially reduced. In all cases, when the child is old enough to be docile, domestic instructi'n and drill in eversion of the foot, and in the proper management of the foot in locomotion, should be a part of the education.

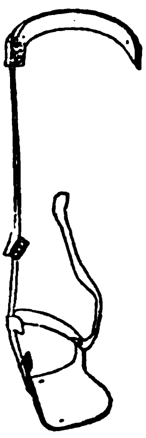

Fig. 17.

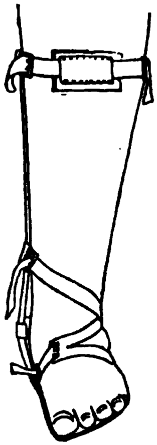

Fig. 18.

As soon as the foot has reached the valgus shape, whether it be at the moment of learning to walk, or only after prolonged effort, in a neglected case, a curious effect will be observed. It will be seen that the outer border of the tread of the foot-piece is raised from the ground, as seen in Figs. 19 and 20, and that we have secured, in a convenient manner, the effect which is sometimes sought by building up the outer border of the sole of the patient's shoe. This is a welcome and powerful ally in our attempts to hold the foot in a favorable relation with the weight of the body and the ground.

The walking-brace has been above described as though its chief use were to reduce varus, which has become more or less confined by the habit of walking on the outer border of the foot. Strictly speaking, such cases should never occur. They are, however, too common, and always indicate that the child has been neglected from the period of recumbent infancy, when deformity of this kind is the most easily overcome. If the varus were always corrected before the child learns to stand, then the only use of the walking-brace would be, as shown in Figs. 19 and 20, to gently hold the foot in valgus, so that the weight of the body shall be sufficient to lead the child to grow up with a foot practically normal. As such a child outgrows the brace, a larger one is to be made, and, when three or four years old, the foot will, without the help of the brace, strike the ground so fairly that, for two or three years, all treatment may be suspended. The patient is to be observed from time to time, however, and, as the foot grows in its original inclination to varus, it will, after the lapse of two or three more years, have to be kept in proper position, under the rapidly increasing weight of the body, by a walking-brace adapted to its needs, for another period of two or three years. When the foot is full-grown it will be shapely in appearance and practically perfect in its ability to perform all the duty of a foot congenitally normal.

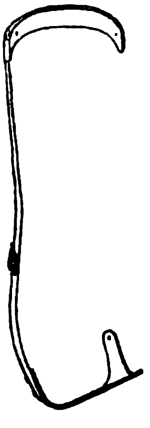

Fig. 19.

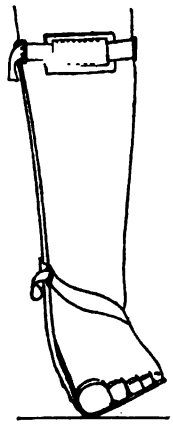

Fig. 20.

Although congenital club-foot has been chiefly kept in mind in the above pages, the views expressed in regard to the influence of the weight of the body are applicable also to talipes varus of paralytic origin. In this affection, at an early stage, and before the foot has lost its flexibility, a simple walking brace is needed, as in Figs. 19 and 20, to properly direct the action of the weight of the body on the paralyzed foot. At a later period, if this measure has been neglected, and the foot has been allowed to become varus, and more or less inflexible, the case will require more attention and probably prolonged effort, with multiple straps and adhesive plaster, to carry the foot across the line between deformity and the norme, to the position in which the weight of the body shall be a correcting and not a deforming force.

A CASE OF ACUTE SUPPURATIVE PLEURISY.

BY H. S. CLARKE, M.D., LUCAN, ONT.

W. C., aged 24, white, a farmer's son, of strong muscular build and first-class family history, spent the 27th of last Nov. doing the ordinary chores about the farm buildings. He said he felt tired and dull. He went to bed early, and was awakened from sleep by a dull pain in his left side. I saw him early the next day, Saturday, the 28th Nov. His temperature was 102°, pulse 116, and respiration 40. He had pain in the left side, which was increased by cough and deep respiration. He was constipated, and had the usual accompaniments of fever. Physical examination revealed friction and slight dulness at lower part of left thorax.

In three days the temperature was 102½°, pulse 120, and respiration about forty. There was an increase of two inches in the measurement of the left side, the ribs were widely separated, there was flatness on percussion, and absence of vocal sounds over the lower lobe, with friction and subcrepitant sounds at upper chest. The impulse of the heart's apex showed itself to the right of the xiphoid notch. The 4th day the temperature was down 1°, and he felt somewhat better.

On the 10th day of the disease, the temperature was 99⅛°, pulse 80, and respiration 30. In a couple of days, his temperature began to go up again. His pulse and respiration became more frequent, and he began to sweat profusely. Day and night he was covered with perspiration. When he fell asleep, which was seldom, he would sweat even more. A constant dirrhœa, which would not yield to any of the usual drugs, took the place of the former constipation; a grain of opium every three hours, day and night, had only a slight appreciable effect upon it. As I have intimated he spent sleepless nights. His respiration was rapid, and the cough was troublesome, but he never spat up anything but white frothy mucus—no blood—no pus from first to last. The side was quite œdematous and bulging, with not much motion. The œdema was very marked from about 3rd rib to crest of ilium, attaining its greatest degree over the 7th and 8th ribs, in the axillary line.

I allowed this to run along for seven days, when with the temperature at 102½°, and pulse at 120, respiration 40, and no amelioration of the symptoms, I determined to aspirate. On the 19th day of the disease, I passed the aspirator needle in at three different places, and got only about ℥i, of what the microscope proved to be pus.

I could not understand why I could not obtain more, so I asked for a consultation. Next day, Dr. Lange, of Granton, met me at the patient's home. We passed a large aspirator needle, and got over a pint of pus, when the flow stopped. We could get no more. This did not mend matters much, so we made a free opening next day, in the following way. At the upper border of the 8th rib in the posterior axillary line I made an incision through the skin 2½ in. long. By using a director and incising the underlying tissues separately, I was able to avoid a vessel that exposed itself between the intercostals, and which otherwise I must have severed. When I reached the pleura, I passed the aspirator needle to make sure I was not opening too low. Having found the incision was in good position, I nipped the pleura, as in hernia operation, and with a blunt-pointed bistoury, completed the incision. The pus flew in all directions. The Dr. assisting me clapped his hand on the opening to steady the flow. It squirted through his fingers into the basin, out on the floor, and fairly deluged the bed, so that the patient sat in a pool of pus. It was now evident from the many large-sized flocculi which escaped with the pus, *what stopped* our aspirator needles.

When two or three quarts had been allowed to come away, we put on an antiseptic pad and bandage, and left it till next day, when I found the pleural surfaces united. However, they were easily separated, and the remaining pus was allowed to escape. Two rubber tubes, one large and one small, were inserted. The small one for inlet, in case the cavity would require washing out, and the large one to act as an outlet tube. The former was left long and fastened at its end, while the latter was left open at the surface of the skin. From the first, antiseptic precautions were taken. The dressings were always made under carbolic spray. A large perchloride gauze pad was put over the tubes, over this cotton and a bandage.

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*Read before the Ontario Medical Association, June, 1892.

In two days the temperature and pulse were normal, the diarrhœa had ceased, and the sweating nearly so. The œdema had disappeared, and the patient felt better. The respirations were still hurried. The inlet tube was now withdrawn. In a week the temperature was sub-normal, while the pulse had gone to 114. There was at no time any offensive smell to the pus. The father was shown how to dress it, with instructions to let me know if pus became fœtid. I saw him once or twice a week. He was up and about the house, and continued to do well in every respect until 9th Jan., when the father met me, as I was going out of my office in the morning, with the expression that "the blamed thing had broken off and gone in." I hurried to the patient's house, some five miles away, and found it as the father had said, the drainage tube had broken off close to the shield and had fallen or been sucked into the pleural cavity.

I dilated the ribs, which had fallen together, with a uterine dilator, and tried to grasp the tube with forceps, but could not do so.

The next day, Dr. Lange, of Granton, met me again, and having put the patient under chloroform, assisted me in the resection of 2⅜ in. of the 8th rib in the line of the old incision, then, while the patient was turned over on his side so as to allow the tube to fall towards the opening, I felt it drop upon my finger, placed in the pleural cavity. I was able to grasp it with a pair of curved forceps and withdraw it. I might say that at that period, 21 days after the pleurotomy, there still remained a vast cavity in the chest, as I could make out with the examining finger.

Having washed out the cavity with sterilized water, another drainage tube with the rubber shield was inserted, a few stitches closed the wound, and the same dressing as before completed the second operation.

For three or four days the temperature and pulse went up. 101° and 108 respectively was the highest attained. He had night sweats, and greatly lost flesh for a week. After that time the pain wore away, his sweating ceased, he was able to sit up, his appetite improved, he gained in flesh, and made an uninterrupted recovery.

I withdrew the tube on the 19th Jan., and allowed the opening to close under a light dressing of gauze and oil silk. From that time he has been allowed his freedom.

Since allowing it to close, expansion of the lung has taken place to such an extent that whereas there was two in. difference in the two sides when the tube was withdrawn, now there is but one, that is the left side which had fallen in two in., has now expanded one in.

Now as to the cause:—This young man was a favorite with the girls, and spent nearly every night of the week attending sprees on neighboring farms. He would go long distances to attend them, and get home often at daylight. His father kept him engaged well during the daytime in order to break his night work.

A couple of days before his pleural trouble he had been out all night, and got home just as his family were getting around in the morning. He was not allowed to go to bed, but spent the day in a drafty position attending a threshing machine. Thus I account for the fact that what in most persons would have been fibro-serous, was in him purulent, because of his depressed and over-worked condition of body and nerve, resulting in some vitiation of the blood.

Selected Articles.

IPECACUANHA IN DYSENTERY.

The following interesting case, illustrating the magical effect of ipecacuanha in large doses in the treatment of dysentery, has lately been brought under my notice whilst acting as physician to the French Hospital, Suez.

M. S——, a native of Austria, has resided for the last nine years at Ismailia. This town is notorious for malarial fever, and for three months in each year—July, August and September—she has suffered from intermittent fever. The paroxysm of fever came on about 11 A.M, terminating about 3 P.M. Towards the latter part of July of the present year she had a very severe attack of fever accompanied by acute dysentery. The diarrhœa was very troublesome, the bowels being moved as many as fifteen times in the course of the day, and the action being accompanied by much tenesmus. The character of the stools was typical of dysentery—at first yellow, then mucoid and slimy, with a very offensive odor. At the commencement of the attack retention of urine occurred for three days, and there have been subsequent attacks of dysuria. For days after the commencement of the fever severe pain was felt in the right side, causing difficulty of breathing and accompanied by vomiting, of a bilious character. On Thursday morning, Aug. 12th, I first saw M. S—— in the consulting-room of the Suez Hospital. She had just arrived from Ismailia with her husband, and was supposed to be in an almost dying condition. On admission her condition was as follows: State of great prostration, with intense irritability and restlessness. Temperature 38°; abdominal tympanites and tenderness; hepatic fulness and intense sensitiveness, dysuria and diarrhœa. The stools were said by the nurse to be of the usual slimy dysenteric character, with a very offensive odor. The patient was placed in a cool ward by herself and absolute quiet enjoined. Twenty minims of tincture of opium were at once administered in a little water, followed in half an hour by half a drachm of ipecacuanha powder. Turpentine stupes were applied to the abdomen and the opium enema of the B. P. given. In the afternoon half a gramme of quinine was given in a cachet. The treatment was so immediately successful in stopping diarrhœa and easing pain that at night fifteen minims of laudanum, followed by a gramme of ipecacuanha, was again given, with another opium enema. For the first day the patient was allowed nothing but hot milk to drink. Aug. 12th: Patient has had four stools in the twenty-four hours, the temperature being 38.6°C. The ipecacuanha caused a good deal of vomiting, but almost stopped diarrhœa, greatly easing the pain in the side. The following powder was prescribed: Two grains of salicylate of bismuth, one grain of sulphate of quinine, one grain of naphthol, one-third of a grain of opium powder. This powder was divided into four cachets, one being taken every three hours. The opium enemata and turpentine stupes were continued. Milk and soda-water, or barley-water, was all that was allowed for diet. 13th: Temperature 38°C. The patient was very comfortable; slept well. Bowels moved three times in twenty-four hours. No abdominal pain. Allowed milk, bread and bouillon. Medicine to be repeated. 14th: Temperature 38°C. One motion in twenty-four hours. 15th: Temperature 37.8°C., the patient passing natural stools. Gets up during afternoon and takes more solid food. Ordered a gramme of quinine and carbonate of ammonia instead of the bismuth preparation. 16th: Temperature 38°C. The patient progressed satisfactorily. 17th: A slight return of diarrhœa, which was effectually stopped by ten grains of Dover's powder. 18th: All unfavorable signs having passed away, at her own request the patient left for her native home in Austria, with the remark that she would have died had she stayed in Ismailia.

The specific action of ipecacuanha in dysentery is due to its dual *modus operandi* on the intestines, as (*a*) muscular sedative, and (*b*) secretory stimulant. The most characteristic symptom of dysentery is tenesmus (Dr. Woodward). There is such exaggerated peristaltic contraction of the rectum and lower portion of the colon that the patient goes to stool from thirty to two hundred times in the course of the twenty-four hours, or sits there for half an hour at a time, straining violently, but passing little or nothing (Dr. Hilton Fagge). The patient is under the delusion that he will pass something that will do him good. The fault does not lie in the irritant to be expelled, but in the irritability of the intestinal muscles. According to Heubner the average quantity of evacuation passed by each patient was found to be only from twenty-eight ounces to forty-two ounces. The great difficulty we have to deal with, then, in dysentery is exalted peristalsis. Ipecacuanha meets the difficulty by acting as an intestinal muscular sedative. A large dose of ipecacuanha stops tenesmus quite suddenly and smaller subsequent doses prevent its return. With a return of the muscular coat to its normal condition the other coats lose their irritability and the accompanying inflammation coincidently subsides. The mucous membrane is then in a suitable condition for the second action of ipecacuanha to come into play—namely, secretory stimulation. We have now to deal with an enteritis, and here ipecacuanha acts in the same way as in bronchitis. Stimulation of the mucous membrane with secretion of mucus is effected by direct action on the peripheral endings of the gland nerves or minute ganglia (Dr. Whitla). Ipecacuanha has the same beneficial effect in dysentery therefore as it has in bronchitis. The action of ipecacuanha on the liver is that of a powerful stimulant. In dysentery the hepatic functions are in abeyance and bile is absent from the stools. Ipecacuanha directly stimulates the hepatic cells, so that very shortly after its exhibition the colorless slimy stools become feculent. In the words of Dr. Ewart, "Ipecacuanha is a non-spoliative antiphlogistic, a certain cholagogue and unirritating purgative, a powerful sudorific and a harmless sedative to the heart and muscular fibres of the intestines." According to this lucid and comprehensive description ipecacuanha is a perfect remedy for dysentery. In a certain proportion of cases ipecacuanha undoubtedly fails. Dr. Maclean says: "Where it fails it is because it has been given too late, when structural changes incompatible with life have taken place in the affected intestine, or from structural diseases of the spleen, liver and kidneys, or the combined ravages of the malarial and scorbutic cachexias." In those cases where ipecacuanha fails when success ought apparently to attend its administration the fault probably is to be found in the diet. For three hours after the first dose of ipecacuanha only a little ice should be sucked and after that a little iced soda-water and milk. Beef-tea or bread, or very light foods, are fatal to the successful administration of ipecacuanha; and to this cause a great many of the failures of ipecacuanha are doubtless to be attributed. On the second day the ipecacuanha can be reduced in quantity and supplemented by salicylate of bismuth, quinine, naphthol and opium. Milk should still form the staple article of diet. Later on farinaceous foods and soups may be carefully given, but a return to solid meat should be deferred as long as possible. Mr. Chowdhovry remarks "that the large doses of ipecacuanha, which have been found to be of great use in treating the dysentery in India, are often inadmissible by reason of the nausea thereby invoked preventing the patient from taking a sufficient amount of nourishment." Considering that the success of the treatment by large doses of ipecacuanha depends upon the condition of the patient in not taking any nourishment during the period of its administration, the failure in Mr. Chowdhovry's cases was evidently due to the fact that his patients were trying to take a "sufficient amount of nourishment," thereby actually causing nausea and preventing a cure. There are cases where ipecacuanha fails when administered by the mouth which may be very successfully deals with by ipecacuanha and opium enemata.—Arthur H. Hart, M.B., etc., in *Lancet.*

A SUMMARY OF WHAT CAN BE ACCOMPLISHED IN THE TREATMENT OF CHRONIC BRIGHT'S DISEASE.

Before considering what may be hoped for or accomplished in the treatment of chronic Bright's disease, it is indispensable to state with precision what pathological conditions are to be considered as coming under the name of Bright's disease, or Bright's diseases. The cases described by Bright himself were characterized by œdema or dropsy, albuminous urine, uræmic symptoms, and extensive renal changes. Yet perhaps even the greater part of the cases which are loosely called "Bright's disease," present none of these conditions except that of mild albuminuria. That physiological or normal albuminuria exists, I do not believe. I think the thorough consideration and argument presented by Lecorché and Salamon upon this vexed question, show that it does not, and in the edition recently published of my own work on Bright's disease, I have devoted considerable space to this important subject. Thus far, none of my arguments have been refuted.

For the purposes of this paper I shall exclude the cases of simple, mild, chronic albuminuria, such, for instance, in which the urine does not contain more than three centigrammes (about one-thirtieth of one per cent.) to the litre, which are unaccompanied by renal epithelia or casts, where there is no diminution in the amount of solids excreted, the functions of the kidneys are not deranged, and the general health does not seem to be impared. And such cases are extremely common. I desire to state what has been and what may be the result of treatment in those cases in which organic changes in the kidney have brought about more or less grave disturbances of the health.

In advanced cirrhosis, where the interstitial tissue is contracted, and the cortex retracted and hardened, so many of the tubules must, of necessity, be obliterated or narrowed, that there would be a great loss or destruction of their investiture of epithelia, and there would not be left enough of these to enable the kidney to perform its formative functions, namely, the formation from the blood of the capillaries which surround the tubules (and often many of the capillaries are inflamed and sclerosed) of the solids which are excreted in the urine. The result of these conditions would be the excretion of the aqueous principles of the urine, containing but little solid matter in solution, and the retention in the blood of elements, which, perhaps, by their decomposition, contribute to the poisoning of the system and the irritation of the nervous centres, and, finally, the dire catalogue of the symptoms met with in advanced cirrhosis. In such cases we can ordinarily hope to accomplish nothing more than to palliate symptoms, and perhaps prolong life. Recovery or a cure is not be to looked for.

Likewise, where the kidneys have undergone considerable fatty change; in the amyloid kidney and in the large white kidney; where there is a daily loss of considerable quantities of albumin, the tubules being choked by swelled epithelia or filled with casts; where the casts from the broad tubules predominate; where the glomeruli are inflamed and incapable of separating the aqueous principles, and the urinary secretion is diminished; and where these changes are fixed and chronic, little, perhaps nothing, is to be expected in the way of a cure.

Nevertheless, between the numerous cases of mild chronic albuminuria and those of advanced cirrhosis and chronic parenchymatous nephritis, there exist many, even severe, forms of nephritis in which the structural changes are marked, and even chronic, and so great as even to produce grave conditions of health and endanger life (I do not here allude to acute nephritis), where much, perhaps everything, can be hoped for, and even expected, from well-directed theapeutics. In these cases we are not confronted by a condition of abject helplessness, but may address ourselves to the work of relief strengthened by a certain sense of power.

When the epithelia are destroyed, they are never restored, their place being taken by a new formation of flat, spindle-shaped cell—endothelia—between the basis of the epithelia and the so-called structureless membrane; sometimes nucleated, though more frequently not. These may be embryonic or aborted epithelia. Of course it is no more possible to produce a new growth of epithelia than it is to restore hardened connective tissue or contracted or shrunk up glomeruli to to their normal state. This must be conceded.

But in all chronic cases which are susceptible of cure there is an intercurrence of acute or subacute inflammation; and this it is which I believe we cure or arrest; and that in chronic nephritis there is a constant effort to develope these new inflammations. The cirrhosis, the destroyed tubules, the obliterated tufts, these conditions must remain. But this being the case, can a cure be expected?

I answer that even then there are cases which are susceptible of a practical cure, or, at least, to such an extent that the renal functions will be unimpaired, the nutrition of the system will be affected, and no symptoms referable to the kidneys will exist. This is possible: 1. Because only a moderate amount of interstitial tissue may be affected, and so few of the tubules, as to leave sufficient healthy epithelia to enable the kidney to perform its functions. So long as this condition is equable and constant, no perturbation is experienced; but when, in addition, the epithelia become more less extensively involved by inflammation, and proliferation and inflammation of the interstitial tissue occurs, and with the increased activity of the renal there is polyuria, increased albuminuria, and diminished formation of solids, then it is that the innumerable symptoms of the morbus Brightii are developed. 2. Cirrhoses may exist only in a mild degree, and sometimes only in patches. There are cases in which the organic changes are limited to one kidney. Now, it is under these three conditions, in which the great part of the cures of Bright's disease are brought about. I have no doubt that the new inflammations can usually be controlled; and when this is done the renal symptoms and deviations from health disappear.

Of course I except cases of great structural changes in the kidney. As in all organic diseases, everything depends upon the *amount* of disease.

I have treated many cases of chronic nephritis in which disturbances of vision, loss of strength and weight, headaches, œdema, nausea and polyuria, variously existed; the patients that I have so treated have been under my observation for several years, and, so far as renal symptoms are concerned, are in the enjoyment of perfect health. In some of these cases the albuminuria has completely disappeared. A few of these cases I will briefly describe.

About twenty years ago a lady, then sixteen years of age, had suffered about six months from all the conditions of chronic catarrhal nephritis. An absolute cure was effected in six months, and her health has remained, and is now, perfect.

Another case is that of a gentleman who had been incapacitated from work for one year, from chronic interstitial nephritis. There was slight albuminuria, great debility, hard tense pulse, with severe circulatory disturbances of the head. Has enjoyed now perfectly good health for about three years.

A third case is that of a gentleman, aged forty-two, of somewhat scrofulous constitution. First consulted me in 1885. There was chronic interstitial nephritis, and he had been incapacitated for work for three years. There was great debility, considerable cardiac tension, and loss of flesh. Within the last three years he has gained sixteen pounds, is strong and able to attend to business. Albumin is, however, always present, varying from $\frac{1}{40}$ to $\frac{1}{100}$ of one per cent. For two or three years there have been no renal epithelia.

The next patient I will refer to was a lady, who had been suffering from chronic nephritis for more than a year. It followed uræmic convulsions, she having had these in four different confinements. There were abundant casts, kidney epithelia, and from one-tenth to one-twentieth of one per cent. of albumin. For five years now there has not been a trace of albumin, and her health has been perfectly good. The microscope in this case showed more croupous than interstitial nephritis.

A girl, fourteen years of age, suffering from the chronic interstitial nephritis of malarial poisoning, was placed under my care nearly eleven years ago. The malady had been recognized about a year before I saw her. There were severe headaches, subsultus tendinum, threatening convulsions, debility, and always about one-thirtieth of one per cent. of albumin. For eight years now there has been no albumin, and the health has been perfectly good.

I mention these cases as illustrations of whst I consider cures in grave conditions of renal cirrhosis or parenchymatous nephritis, and I could mention a considerbale number of others.

Undoubtedly, were it possible for me to make now a microscopic examination of the kidneys of these patients, I should find more or less thickened and hardened interstitial tissue, obliteration of a greater or less number of renal tubules, some tubules partially stripped of their epithelia, and others partially obliterated, and perhaps thickening of Bowman's capsule and destruction or atrophy of some of the tufts. But I should expect to find no acute nor subacute inflammatory conditions, and I should find enough healthy epithelia and tufts to separate the urinary salts and aqueous principles in their normal quality.

In a word, the healthy tissue would be so much in excess of that destroyed or useless that the loss of the latter would do no harm.

Thus I have endeavored to given a summary of what may be accomplished in the treatment of chronic nephritis; certainly a much more cheerful summing up than can be given of phthisis and many other grave diseases, and, on the whole, affording much that is cheering itself.

The ordinary chronic, harmless albuminuria of years' standing, proceeding for instance from the glomeruli without any lesions of the urinary tubules, can seldom, if ever, be cured, and I will go so far as to say that in the majority of cases it matters but little whether it be cured or not.

In chronic croupous nephritis with dropsy, in the large white kidney, or the fatty kidney, the prospects of benefit from treatment are much less than in the mild cirrhotic kidney. My experience in these cases has usually been unsatisfactory, and I believe that the possibilities of what I will continue to call a cure are very small. Nevertheless, I have records of several cases of chronic tubal nephritis of more than a year's standing, with dropsy, which were radically cured, the albumin entirely disappearing. Of course these were not cases of the large white or fatty kidney, but were undoubtedly cases of simple tubal nephritis. There was, in these cases, considerable albuminuria, numerious epithelia and casts, mostly granular, many of them having undergone fatty degeneration.

Chronic parenchymatous nephritis I have found more favorable to treatment when it has resulted from paludal poisoning; I have found iron, arsenic, and quinine of great value in these cases.

Another class of cases in which treatment may yield highly satisfactory results is where the nephritis has had a specific origin.

I have given, in the third edition of my work on Bright's disease, the details of what is practically a complete cure of a grave case of chronic interstitial nephritis of syphilitic origion. That patient had been under treatment for nearly two years before he consulted me; he had for several months been incapacitated from attending to business, and suffered from debility, headaches, and dimness of vision; there was considerable œdema of the eyelids; there were at no times casts, and but few renal epithelia. Two or three years of treatment were, however, necessary to bring about a good condition of health. I will say that for many months he took from forty to eighty grains of the iodide of potash daily, besides taking Fowler's solution in large doses, and corrosive sublimate, as well as the proto-iodide and bin-iodide of mercury.

I will say no more at present as to what may be expected in the relief or cure of chronic Bright's disease. I am glad that I am able to say so much that is favorable. I am aware that many physicians regard all cases of chronic nephritis as being beyond the pale of relief. But there is no reason why chronic inflammatory conditions of the kidney may not yield to treatment in a like proportion with other chronic inflammatory conditions, as of the lungs, cirrhosis of the liver, etc. Dr. Millard, of Paris, has published an account of three cases of the latter which he has cured.

As to acute Bright's disease, I will only say that it may be placed in the list of curable diseases. There are but few cases that with proper treatment may not be perfectly cured.

But when I say that many cases of chronic nephritis may be cured, it is not to be inferred that a cure is always easy, or to be effected without the expenditure of a good deal of labor and time on the part both of the physician and patient. Circumstances must favor the latter, in enabling him to pursue the treatment uninterruptedly for as long a time as is necessary; if needed, to take rest from work, to avail himself of a course of mineral waters, or a change of climate. Thorough chemical and miscroscopic examinations of the urine must be frequently made, so as to take advantage of every change in the renal conditions; the diet, selected with care, must be rigorously observed; hot air or vapor baths I consider indispensable. Whenever a new case of much gravity is presented to me, I usually require the patient to keep his bed perhaps for several weeks, and to subsist on a lacteal, or on a slightly nitrogenous, diet. It is necessary to make the patient understand *in limine* the necessity of all this, and that he has before him a long and arduous course of treatment. Unless patients comprehend all these necessities I cannot give them much encouragement, and prefer not to treat them.

It is not the purpose of this paper to refer specifically to the treatment, but I will say that, together with the measures I have referred to, I have found various mercurial preparations indispensable, and I have used with great value ergotinine caffeine, strophanthus, digitalin, sparteine, arsenic, various preparations of iron, especially the albuminate and chloride, quinine, the salts of strontium and calcium, nitro-glycerine, iron and arsenical waters of the Trentino, as the Levico and Roncegno, and diuretics. If uric acid exist in excess I neutralize it by Vichy, Vals, or similar waters, and often prescribe for the same purpose Schering's piperazine water with phenocoll. I send patients often to Evian, Vichy, or Royat, and, if the hepatic functions are greatly deranged, to Carlsbad, Marienbad, or Vichy.

I will close by quoting from my own work the following remarks upon treatment:

"There is a harmful disposition on the part of writers even of known ability, in reviewing the therapeutics of Bright's disease, to speak of the employment of a long list of remedies in this ailment, and of finding them in certain cases useless or the contrary. Practically, their conclusions are to the effect that such and such remedies are 'good' or are not 'good for' R. Bright's disease. The mistake that such writers make is in considering this malady an *entity* and treating it as such, instead of realizing its multiple character and the fact that the pathological conditions, the changes, the constitution of the disease, the etiology, are seldom identical in different cases; although it is of course true that there is a certain number and class of remedies without recourse to which treatment would be likely to prove unaviling."—Henry B. Millard, M.D., New York, in *Medical Record.*

THE ALBUMINURIA OF PREGNANCY TREATED BY THE INTERNAL ADMINISTRATION OF CHLOROFORM.—REPORT OF CASES.

In the *Southern Medical Journal* for August, 1890, an article appeared from the pen of Dr. A. W Griggs, claiming excellent results in the treatment of the "Albuminuria of Pregnancy" by the internal administration of "chloroform" in from ten to twenty drop doses in water after each meal and at midnight.

Inasmuch as my own treatment of this condition had not been altogether satisfactory, I determined to give chloroform a trial as soon as an opportunity offered.

As a result of my trial of the remedy I append cases representative of different cases coming under my own observation and that of some of my medical friends.

Case I.—On November 3, 1890, my first opportunity offered in the person of Miss C., unmarried, æt. 22 years; pregnant about 8 months. Two weeks ago her feet and ankles began to swell and the swelling has gradually increased until to-day she has general anasarca. She is listless and complains of continuous frontal headache and dull heavy pain in the back and lower extremities Pulse 88, temperature 99, pupils sluggish. Her mother states that during the last 24 hours she had not passed more than a half teacupful of urine (she had been treated for over a week by an irregular). I had her pass her urine and she voided about ℥ij. A rough bed-side test showed it albuminous (albumen = $\frac{1}{8}$). I ordered her ten drops of chloroform in a tablespoonful of water every 6 hours.

Nov. 4, 2 p.m.—General condition about the same, has passed 16 oz. of urine in 23 hours. Treatment continued.

Nov. 6, 9 a.m.—Pain in head slightly improved, otherwise patient is about the same. Has passed 27 oz. of urine in 42 hours. Dose of chloroform increased to 15 gtt.

Nov. 8, 11 a.m.—Patient much brighter, headache only slight, pain in back and extremities very much improved. Has voided 54 oz. of urine in 50 hours. (Albumen = 1-12). Treatment continued.

Nov. 10, 2 p.m.—Patient very much improved. swelling diminishing rapidly, has passed 80 oz. of urine in 53 hours. She perspired profusely during last night.

Nov. 12, 10 a.m.—General condition good, swelling of face and upper portion of body has almost entirely disappeared. Has passed 78 oz. of urine since my last visit.

Nov. 14, 3 p.m.—Patient says she feels comparatively well, only that nasty medicine is beginning to make her sick at the stomach. Has passed 76 oz. of urine since last visit (albumen = 1-20). Up until my third visit her parents were entirely ignorant of the fact that she was pregnant, and before I had an opportunity of seeing her again they thought it prudent to have her (for the benefit of her health?) visit friends in a distant city. I afterwards learned that she was delivered of a feeble female child (which survived only a few days) on the 7th of December, and that nothing unnatural occurred during her lying-in.

Case II.—On the night of February 2, 1891, I was called hastily to see Mrs C., who was pregnant near unto term in her fourth pregnancy. Her husband stated they had not noticed anything unusual about her and that she had gone to bed apparently in good health, at 9 o'clock. At 11 o'clock he awakened and found her in a convulsion. When I arrived I found her in a semi-comatose condition, pulse 120, temperature 101. I passed catheter and drew off about one ounce of urine. There was no swelling except slight of feet and ankles, no history of suppression of urine. Touch did not reveal any sign of oncoming labor. I gave her a half teaspoonful of chloroform as soon as I could get her to swallow it, and repeated the same dose every half hour until four doses had been taken. I left her with directions to give her 15 drops every hour until I returned, and in event of another convulsion to call me at once.

Feb. 3, 8.30 a.m.—Patient is stupid, answers questions intelligently. Pulse 108, temperature 99½, pupils sluggish. Drew 6 oz. of urine with catheter (albumen = 1-10). Continued chloroform 15 gtt. every hour.

6 p.m.—Urine has passed involuntarily, pulse 120, temperature 100½. About ʒj of urine drawn by catheter. Patient very stupid, slight twitching of muscles of face and left upper extremity. Order chloroform in half teaspoonful dose every one, two or four hours as indicated by muscular movements or restlessness.

12 midnight.—Patient in labor, os well dilated, cephalic presentation L.O.A. position. 12.30 mem-

branes ruptured and at 12.40 she was delivered of a living male child weighing 8 pounds and 10 ounces. Her lying-in was perfectly normal. Abundant secretion of urine, and on fifth day there was merely a trace of albumen.

CASE III.—On July 9, 1891, I was called to Mrs. W., æt. 20, pregnant eight and one-half months; first pregnancy. She said she was feeling very well, but that her feet and legs were considerably swollen, and she thought she had better see a doctor about them. Her general health was good; pulse 84, temperature 98½, tongue clean, bowels moved every second day. She said she passed her urine very freely and frequently. I told her to send some urine to my office in the evening, and I would call the next day. In the meantime, she might take a small dose of citrate of magnesia. The urine, sp. gr. 1028 (albumen = 1-20), a few granular casts.

July 10.—Patient reports having passed 32 oz. of urine in 26 hours; bowels moved once freely; a small quantity of urine had passed at that time, not measured. I ordered 10 gtt. of chloroform, morning, noon, supper and bed-time.

July 15.—Urine passed in last 20 hours, 18 oz.; swelling considerably increased; ordered medicine continued.

July 18.—Urine passed in last 22 hours, 15 oz.; now some puffiness of eyelids; slight headache; ordered 15 gtt. of chloroform every five hours.

July 20.—Urine passed in 44 hours, 26½ oz.; considerable swelling of the face, and swelling very much increased in lower extremities; complains of some nausea, and headache much worse; ordered 10 drops of chloroform and a teaspoonful of infusion digitalis every three hours.

July 21.—Has not been able to take medicine regularly on account of vomiting; swelling still increasing; headache severe; has only voided about 12 oz. of urine in 24 hours (albumen=⅛); ordered ℞—Mur. cocaine, grs. ij; aquæ calcis, ℥ij. M.—Dose, a teaspoonful every one or two hours as needed for vomiting; chloroform and digitalis to be continued.

July 22.—Headache improved; has only vomited twice; passed 16 oz. of urine in 22 hours; the swelling of lower extremities so great I deemed it prudent to puncture the feet with a surgical needle, making twelve punctures in each foot. Treatment continued.

July 23, 12.30 a.m.—Patient was taken in labor about 9 o'clock; os is dilated to size of silver dollar; cephalic presentation, L.O.A. position; pains strong, bearing and regular every ten to fifteen minutes; 3 a.m., membranes ruptured, os well dilated; 3.35, was delivered of a female child, weighing 5½ pounds; no anæsthetic given during labor; recovery uninterrupted; urine abundant; all trace of albumen had disappeared on twelfth day.

CASE IV.—Dec. 27, 1891, 10 a.m., I was called to see Mrs. S. J. L.; pregnant, 7 months in her sixth pregnancy. A history of eclampsia in two of her former labors; called me because she was swelling, and felt very much the same as in her former unfortunate pregnancies. She was anæmic; pulse 110, temperature 99, tongue furred, urine scant and high colored; could not state exactly quantity passed; diarrhœa, bowels moved eight to ten times in 24 hours. She was generally anasarcous, her feet and legs especially being enormously swollen. Intense headache, and some dimness of vision; subsequent examination showed urine albuminous (albumen 1-12). Ordered 15 drops of chloroform every four hours, and brom. potass. and chloral hydrate, āā grs. x, every two hours until pain in head was relieved.

6 p.m.—Patient reports no improvement.

Dec. 28, 9 a.m.—Patient slept about five hours, pain in head much relieved; only took three doses of brom. and chloral; was not able to measure quantity of urine passed on account of diarrhœa. Ordered chloroform continued. Brom. and chloral only if restless or pain in head. Also bis. sub-nit. grs. xij every two hours if needed for diarrhœa.

6 p.m.—Reports having slept two and one-half hours during day; diarrhœa not so frequent; no headache.

Dec. 29, 2 a.m.—Patient slept from 11 until 1 o'clock, when she awoke and had what the nurse termed a severe convulsion, lasting about five minutes. Patient is now semi-comatose, pulse 140, temperature 99½. 2.10—took a convulsion while I was examining her; lasted three minutes. Administered chloroform by inhalation. At 3.30 slight twitchings of muscles of face occurred. I gave her then a teaspoonful of chloroform by the mouth. She then rested for two hours.

Dec. 29, 9.30 a.m.—Patient conscious but stupid. Pulse 114, temperature 99+. I drew three ounces of urine and found some urine and fæcal matter had been passed involuntarily in bed. Ordered bismuth continued as needed and gtt. xv of chloroform every two hours, unless patient was sleeping.

8 p.m.—Patient resting easily, has passed urine involuntarily; no diarrhœa. Treatment continued.

Dec. 30, 9.30 a.m.—Patient slept six hours during night. Is perfectly conscious, has slight pain in head. Has passed six ounces of urine in ten hours. (Albumen = ⅛). Treatment continued. From Dec. 30 to Jan. 3, the quantity of urine passed averaged 16 oz. for the 24 hours. The swelling gradually increased. There were no further signs of convulsions.

Jan. 3, 2 p.m.—Patient is slightly delirious, pulse 124, temperature 99+. Urine passed involuntarily and some diarrhœa in morning. Ordered one-half teaspoonful of chloroform every two or four hours until rest was secured. Nurse reported having only given three doses until Jan. 4, 11.30 a.m., when I found patient rational and in labor. Os dilated, both feet presenting. At 12.10 I delivered of an hydrocephalic monster. Her recovery was uninterrupted until the eleventh day, when a slight attack of phlegmasia alba dolens set in, which somewhat retarded recovery.

CASE V.—Mrs. S., æt. 23, pregnant 8 months, in her third pregnancy. In her first pregnancy, I was compelled to induce labor on account of rapid succession of convulsions during thirty-six hours. Second pregnancy was uneventful, no albumen or dropsical effusion occurring. Now, April 5, she is considerably swollen in lower extremities, urine high colored and scant, and on examination albumen = 1-10. Ordered 15 gtt. of chloroform four times a day in a tablespoonful of water.

This case, residing a distance out of town, was to report to me in a few days. She neglected to do so, however, for ten days, when she reported swelling reduced; urine passed from 36 to 40 oz. in 24 hours, on examination, albumen only a trace. The medicine was discontinued. She was confined on May 1; her labor and lying-in being perfectly normal.

Several other cases have been treated at my request by medical friends with a view to ascertain results. I regret very much that I have not had the opportunity for observation I thought I might have when I agreed to write this paper. It is a small experience upon which to base an opinion. Taking these cases in connection with a few others of a milder nature I have treated and several reported to me kindly by members of the Pittsburg S. S. Medical Society, I am led to conclude that chloroform does undoubtedly do good in some cases, while in others it apparently aggravates the trouble. It seems to me, whatever its effect may be determined to be upon further investigation, with regard to increasing the flow of urine and decreasing the albumen, that it does have a beneficial effect when given internally in preventing eclampsia.—J. Milton Duff, M.D., in *Jour. of Am. Med. Association.*

THE DIFFERENT FORMS OF CARDIAC PAIN.

Cardiac pain is a symptom belonging to several affections that differ from each other in their nature and pathology. These maladies have all the common property of pain, varying in degree, and seated apparently or really in the heart. There is, however, no satisfactory term in English usage for designating this pain. On the ground of analogy, it would seem proper to call it cardialgia, after the examples of gastralgia, cephalalgia, etc.; but this word is already appropriated, illogically though it may be, to an affection with which the heart is not concerned at all. Thus, in the *National Medical Dictionary* of Dr. Billings, the first definitions of cardialgia are gastrodynia and heartburn, the last being pain in the heart. In the *Century Dictionary* and in that of Dr. Foster no other meanings for cardialgia are given than heartburn and gastralgia. Dr. Flint says that "cardialgia signifies pain at the cardiac orifice of the stomach, of a burning character"; and Dr. Wm. H. Welch, in his very valuable monograph on *Ulcer of the Stomach*, says: "With most English and American writers cardialgia signifies heartburn, while Continential writers understand by it the severe paroxysms of epigastric pain which we more frequently call gastralgia." This usage, though fixed, is certainly contrary to etymology and to the analogy of similar words. *Heart-pain* would suggest its meaning very plainly, but it is not in accordance with English usage; for we do not say head-pain or back-pain; and if headache, backache, and earache suggest *heartache*, we are debarred from that word by the fact that since it was included with "the thousand natural shocks that flesh is heir to" it has always been used to denote emotional rather than physical distress. We are therefore driven to the use of the terms "cardiac pain" or "pain in the heart."

This kind of pain is found as a prominent symptom principally in three different forms of disease of the heart; and I desire to refer briefly to these from a clinical rather than from a pathologic point of view.

The first of these, and the one in which the pain exists in most intense degree, is angina pectoris, true angina with increased arterial tension, occurring in paroxysms, and most frequently associated with aortic or coronary disease or with fatty degeneration of the heart. As the name of this affection implies, the pain is of the very essence of the disease itself. In severe cases it is nothing less than a mortal agony—an agony from the very intensity of the pain, and a mortal agony because, as testified by many sufferers, the pain is attended with a sense of impending dissolution. Nothing can better describe a paroxysm of angina than words used by a non-medical writer, and without reference to this disease, in which he speaks of "a sense of ruin which is worse than pain." As recorded by Dr. Latham, from his own observations, it is "a suffering as sharp as anything that can be conceived in the nature of pain, including something which is beyond the nature of pain—a sense of dying." Keeping in mind this element of the paroxysms, I think Professor Flint's criticism, that "Heberden's term signifying *strangulation* has but little pertinency in this application of it," is, with all deference to his high authority, hardly justifiable; for Heberden speaks of "the sense of strangling and anxiety with which the disorder is attended"—*angor pectoris intentans vitæ extinctionem;* and he seems to use the word angina with reference to these rather than to the pain alone; to the combination of anxiety and anguish found in the disease; words indeed that come from the same root as angina, and bear witness to the accuracy of the term as Heberden first employed it.

The structural changes connected with true angina are in a very large proportion of cases those that produce cardiac ischemia, especially insufficiency or atheromatous rigidity of the aorta, obstruction of the coronaries or fatty degeneration of the heart. Any one of these changes may lessen the blood-supply to the heart-muscle; but only the first two, aortic insufficiency and obstruction, are diagnosticable with certainty by auscultation; we may suspect coronary obstruction or fatty degeneration, but we cannot during life prove their existence. Hence the prognosis of a case of true angina pectoris may be equally as grave when auscultatory examination yields a negative result, as when it discloses organic disease; for the cardiac ischemia on which the disease may depend may be brought about by undetectable coronary obstruction or fatty change. On the other hand, post-mortem examinations not infrequently show great sclerosis of the coronaries, and also fatty degeneration, in cases in which the symptoms of angina pectoris had not been present during life; so that it is difficult to determine what is the immediate cause of the angina, *i.e.*, what is the exact causative relation of the lesions to the symptoms.

A very common factor in the production of a paroxysm, or at least a very common attendant upon the paroxysms in the earlier attacks, is a great and sudden increase of arterial tension. Whatever be the underlying organic cause, the immediate action seems to be purely neurotic, just as it is in Nothnagel's vasomotor angina, coming on after exposure to cold, which produces apparently a spasm of the peripheral arterioles and a sudden feeling of tension or severe pain about the heart; or there may be some unknown reflex influence by which the arterial constriction and increased tension are brought about and the paroxysm excited.

It was this sudden increase of arterial tension that led Lauder Brunton, by a happy inference, to try the effect of amyl nitrite in angina. The action of this remedy in causing flushing was first observed by Guthrie, and its power of lessening tension was first shown by Gamgee, but the application of its power to the particular form of increased tension found in angina pectoris was first made by Brunton, with the well known results of giving deliverance and safety, at least for a time, to many that have seemed ready to perish. In view of the many cases of angina in which great and prompt relief has been given by this agent, I cannot but feel surprised at the opinion expressed by several recent writers that it is doubtful if there are any remedial agents that have the power to arrest or very greatly relieve a paroxysm of the disease. No therapeutic results seem to me more obvious and satisfactory than those that are often witnessed from the use of this remedy in angina; and I fully agree with Professor F. C. Shattuck, that the value of the nitrites in angina is greater than Strümpell, the author upon whom he comments, would seem to admit.

A second form of cardiac pain closely allied in character to the one already considered, and yet distinct from it in its pathologic relations and generally less intense in type, is encountered as a complication of some cases of chronic nephritis, chiefly the contracted kidney or interstitial nephritis. In this class of cases the changes in the kidneys and sometimes in the heart are parts of a general arterio-sclerosis, and the pain in the heart is probably the expression of resistance to the blood-flow through the arterioles.

If it be asked why, with a constantly present mechanical cause, the attacks should be paroxysmal, with intervals between them, it may be said that this is a law of various neuroses, such as neuralgias dependent on pressure, or epilepsies due to exostosis or depression of bone, or spasmodic asthma due to nasal polypi—all conditions in which the causes are constant and the neurotic seizures paroxysmal. In this form of cardiac pain, the attacks may be frequent, but they are in general less severe (such at least has been my experience) than those of true angina connected with heart-lesions. I have described several such cases in a paper read before this Association at its meeting in 1888. In all of them the symptoms of chronic interstial nephritis existed, and in one of them, in which the painful attacks were most severe and most like those of true angina, post-mortem examination disclosed not only chronic contracted kidneys, but occlusion of the coronaries. It is in cases of this kind that potassium iodide in large doses, as advised by Huchard, may sometimes prove beneficial by lessening the arterio-sclerosis. In the painful attacks, a certain degree of relief may be obtained from amyl nitrite, which, though it cannot reach the organic cause of obstruction, may lessen an incidental increase of tension.

After all, these two forms of cardiac pain may be essentially one in their pathology—both being dependent upon sclerotic changes. Regarded clinically, however, one group is composed of cases in which there are detectable or suspected organic heart-changes, with no kidney complications; while the other group consists of cases in which the kidney-symptoms are always prominent, while the heart may or may not be involved.

A third form of cardiac pain is found in dilatation of the heart, and is perhaps due to tension and stretching of the nerves in the heart-substance, Traube held that the pain of true angina is due to this cause. Whether it be so or not, the subjects of cardiac dilatation frequently experience pain about the heart, greater in degree in general in proportion to the rapidity with which the dilatation is induced.

Pain may thus arise from any form of valvular disease of the heart that leads to dilatation; but of the various valvular lesions it is perhaps found most commonly in aortic insufficiency, which is likely to occasion rapid dilatation of the left ventricle, from the pressure of the backward current of blood from the aorta, at the same time that the left auricle is sending its supply into the ventricle It is to be remembered, however, that aortic insufficiency may give rise to some cardiac ischemia by the imperfect filling of the coronaries; and thus there may be two causes of the pain, the ischemia and the intra-ventricular pressure. Which has the larger share in causing the pain, it may be impossible to say.

If dilatation be extreme and acutely developed, free venesection may be the best means not only for relieving pain, but also for saving life.

In all forms of cardiac pain, arsenic is a remedy of much value, from its action as an anti-neuralgic, and from its power of promoting the nutrition of the heart. It has no effect in the way of controlling existing pain, but it may lessen the severity and the frequency of future attacks, and I hold, with Anstie and with Balfour, that there is no more important prophylactic tonic against cardiac neuralgia than arsenic.

Looking at all three of these forms of disease and endeavoring to co-ordinate them as to their cause, it is quite possible that the chief factor in the production of pain common to all of them is pressure brought to bear upon the cardiac nerves or upon the cardiac ganglia themselves. The connection between these ganglia and the cervical and brachial plexuses gives a ready explanation of the extension of the pain to the arms that may occur in any form of cardiac pain. In the first or strictly paroxysmal form, true argina, the pressure may be occasioned by the sudden tension of the arterioles; in the second form, by the general sclerotic state of the vessels; and in the third form, with dilatation of the heart, by the attenuation of the heart-walls.—Samuel C. Chew, M. D., in *Med. News.*

NOTE ON THE RELATION OF THE SYMPATHETIC TO THE CEREBRO-SPINAL NERVOUS SYSTEM.

Stewart in opening his article on the disorders of the sympathetic nervous system, says: "Although the physiology of the sympathetic has been advanced considerably within recent years, there has not been a commensurate advance in our knowledge of its diseases. In fact, with the exception of a few important disturbances which we know to have a direct causal connection with alterations in the sympathetic, our knowledge of its diseases is very superficial and in many cases purely problematical." He then gives the following list of the chief disorders attributed to changes in the sympathetic, hemicrania, exophthalmic goitre, angina pectoris, Addison's disease, diabetes mellitus, unilateral hyperidrosis, glaucoma, neuroretinitis, and ophthalmia neuro-paralytica. He does not mention neuralgia, neuritis or any of the common disorders to which nerves are liable, and yet neuralgia of the abdominal sympathetic is a comparatively frequent affection. Indeed, most modern writers have neglected this disease, seeming to regard it as synonymous with colic. It is this habit of applying the general term colic to all painful disorders having their origin in the intestine that has done so much to obscure our conception of the diseases of the abdominal sympathetic. Thus, Ross in speaking of the cœlic plexus, describes neuralgia mesenterica, and as synonyms employs the terms colic, enteralgia, and colica saturnina. That he regards these conditions as practically identical is apparent from the description, where he says that "enteralgia or intestinal colic consists of pains in the abdomen, having their seat of maximum intensity about the umbilical region." He mentions neuralgia of the gastric and hepatic plexuses, but it is only when describing the disorders of the cœlic plexus, that he seems to regard pain in this region as identical with colic. Romberg clearly pointed out the error of applying the term colic to every pain having its origin in the intestinal tube. In this he was not alone, as Thomas Willis had described essential neuralgia of these parts long before and had clearly distinguished between the colicky pains, vulgarly termed the gripes, and the disease in question. The former attacks all classes of people indifferently, is caused by incongruous or unusual beverages, diet, taking cold, etc. The latter, however, develops in persons who are predisposed, it has peculiar features, and is probably dependent upon an essential cause differing from the accidental ones named as originating the first group.

The severest case of abdominal neuralgia that ever came under my observation, was that of a young man 26 years of age, single, of good habits, who was employed as a salesman in a feed store, and led a temperate, active life, with plenty out of door exercise. He was apparently in perfect health, his complexion was ruddy, appetite good, and bowels regular. For the past seven years he had suffered from excruciating pains in the abdomen; the attacks would come on at intervals of from one to three weeks, and would last from

24 to 72 hours. The pain would begin as a dull ache, having its point of maximum intensity, about the umbilicus, it would gradually increase in severity until it was quite unendurable. In the attacks when I saw the patient, the abdomen was usually retracted, the pulse was small, and the pupils moderately dilated. The face was often covered with perspiration. The pain would increase for some time, reaching the maximum at the end of twenty-four or thirty-six hours, it would then gradually subside until it had entirely disappeared, and the patient was again in apparently perfect health. While the patient has suffered for seven years, it is only during the last three, that the disease has acquired its present severity. At no time during the attacks was there any tenderness upon pressure, nor did pressure afford any relief to the pain. There was no rise of temperature during the attacks, though it was frequently taken. While the pain always began about the umbilicus, after some hours it would radiate to all parts of the abdomen, and would apparently pass a short distance above the margin of the ribs; it extended into the loins when the attack was at its worst.

During the time this man was under treatment, which extended over some months, every possible source of reflex irritation was looked for. The stools, urine, bladder and rectum were carefully and repeatedly examined, but were invariably found to be normal. During the paroxysms of pain the stools were always regular, and the fæces well formed. An important fact in this patient's history was that at no time did he present any of the usual symptoms of neurasthenia. He had used morphine for some years to control the pain but had not become an habitual user of the drug. He was rigorously treated in a variety of ways. The constant current was used with at first quite marked effects, but it soon ceased to exercise any control over the disorder. Various anti-neuralgics were employed, but like morphine, they seemed to exercise only a temporary influence. The patient realizing that I could do little for him finally drifted away; the last I heard from him was that he was having his attacks with their old time regularity, and he had settled down to the belief that with him they were a fixed and irremediable condition.

My reasons for regarding the above case as one of pure neuralgia of the abdominal sympathetic is that it closely resembles neuralgias of the cerebro-spinal nerves in its paroxysmal character, the freedom from all associated structural changes in the organs supplied by these nerves, the unaltered secretions and absence of all signs of inflammation. Of course the absence of tender points and the tendency of the pain to radiate to different nerves and plexuses until apparently all within the abdomen were involved, could be affirmed *a priori* when we consider that this portion of the nervous system is made up largely of non-medullated nerve fibres and closely associated ganglia.

Another case was one in which the cardiac and pulmonary plexuses were involved. A man 38 years of age was sent to me from an adjoining State, with the following history: Three years before he began to experience pains in the chest radiating from the sternum in all directions, but especially over the precordia. There was a good family history and an account of previous good health. The onset of the pains was gradual, but they increased in severity until now they are at times very severe. He says that he is never free from some uneasy feelings in the chest. The man is in excellent health, never has a cough or any severe illness. His digestion and appetite are good and he sleeps well when not disturbed by the pain. He admits having used tobacco excessively for many years, but for the last twelve months has stopped it entirely. An examination of the heart shows arythmia but no enlargement or murmur.

I have detailed the above histories for the purpose of showing that so far as one common form of nerve disturbance is concerned the sympathetic nerves do not behave differently from those of the cerebro-spinal system.

Most writers seem to regard the sympathetic as having peculiar and distinguishing functions apart from those possessed by other portions of the nervous system. Doubtless much of the obscure theorizing regarding the pathology of the sympathetic has its origin in the vague and fanciful notions held for so many years by the older physiologists.

Bucke, of London, Canada, claimed that the moral nature of man resided in this part of the nervous system, and in one case of insanity, associated with marked moral perversion, he searched these ganglia closely for anatomical changes.

Even yet it is the custom of our standard works to look upon the nervous system as composed of two divisions, the cerebro-spinal and sympathetic, but Dr. Gaskell pointed out the erroneous nature of such an assumption, and showed that the so-called sympathetic system was but an expansion of the cerebro-spinal nerves. The chief reason relied upon by the older anatomists for making this distinction was morphological; the presence of numerous ganglia and the fact that the greater bulk of the fibres were non-medullated, or the so-called grey fibres. Later research has abundantly shown that the structural differences are more quantitative than qualitative. Non-medullated fibres are found in the spinal nerves in considerable numbers; these nerves are also associated with nerve cells irregularly aggregated but in small numbers, usually at the point where they break up to form plexuses before passing to final distribution. Bearing in mind, therefore, that these structural differences are of degree and not of kind, we are better prepared to regard the nervous system as an entity and we shall reach a much better understanding of its different parts. What structural differences there are, are due to the fact that it is through the cerebro-spinal nerves that the principal sensations from the skin and voluntary impulses to the muscles pass. Of necessity these fibres must be insulated ; they must have a medullary sheath. If such were not the case there would be an interference with sensations, and we would not be able to locate the point of impingement upon the surface, Again, the voluntary movement of a single muscle pre-supposes that the impulses which gives it origin shall start from the cortical centre and travel upon a medullated, *i. e.*, insulated fibre to its termination in the particular muscle. The older and indeed current writers on this subject said it was the peculiar function of the cerebro-spinal nerves to preside over the voluntary functions, in contra-distinction to those of the sympathetic whose function it was to govern the involuntary or vegetative functions. If we could strip the cerebro-spinal nerves of every sensory and motor medullated nerve fibre we should find almost the exact counterpart of the sympathetic system A careful examination of the anatomical structure of the sympathetic shows that these conclusions are correct, as no fibres are found to have their origin in the ganglia but all are derived from the cord. For the most part they have their origin in the inner side of the posterior horns and they are at first medullated, but as soon as they reach the ganglia they loose their insultating sheath, that is, the greater part of them do, and pass on to their distribution. A relatively small number of medullated fibres persist in the sympathetic just as a relatively small number of non-medullated fibres are found in the cerebro-spinal nerves. The error of the older writers was in regarding the cerebro-spinal nerves as being distinctively motor and sensory, overlooking the fact that they possessed to a marked degree the vegetative or trophic functions. We venture the prediction that only for this unfortunate misconception of the functions of these two great divisions of the nervous system we would have a much clearer knowledge of many pathological processes than we now possess.

We may divide the development of this subject into three stages. In the first, physiologists divided the nervous system into two parts, the voluntary and the vegetative. This regulated the sympathetic, to a position not much more important than held by ordinary connective tissue. The second stage was ushered in with the discovery of the vaso-motor nerves and the fact that most of the cerebral ganglia were connected by filaments with the sympathetic, and that many of these exercised a direct influence on the calibre of the blood vessels to which they were distributed. With this epoch came much of the bizzare pathology that linked many strange disorders, such, for example, as hemifacial atrophy to changes in the sympathetic. It was such an easy matter to sever the cervical sympathetic and note the dilated capillaries, therefore the atrophy of the same region must be due to changes in the circulation. As a matter of fact this disorder is much better explained by referring it to a trophic disturbances in the fifth nerve. These and other erroneors conceptions were accentuated by the fact the sympathetic is concerned in regulating the blood supply of the great organs ; their relative importance in this respect has obscured the fact that the spinal nerves have the same function. In fact there is not a single difference in the function of these two systems, so-called, that is not readily explainable by these structural peculiarities and by differences in the office of the organs to which they are distributed. There is not a single basic function of nervous tissue which they do not possess in common.

The third stage will, we hope be one in which the nervous structures are described, not as being divided into two systems, but one in which the sympathetic nerves are regarded as branches of the cerebro-spinal, subject to the same laws of functional activity and liable to same accidents and diseases. With this more correct understanding of its relations, we look for increased interest in its structure and functions and a better clinical grasp of its disorders.—Harold M. Moyer in *Jour. of Am. Med. Assoc.*

TREATMENT OF GASTRIC ULCER.

In those cases in which the most prominent symptoms are localized, epigastric pain, vomiting, loss of appetite, and anæmia, and which principally occur among young and chlorotic females, rest, strict diet, and the administration of alkalies and bismuth has been the stereotyped treatment. It is essential that each of these measures should be, wherever it is possible, strictly enforced. Complete rest in bed for some weeks, recommended at first by English physicans, and more recently insisted upon by Leube, Ziemssen, Ewald, and Rosenheim, is an essential point in the treatment, and must be insisted upon even if there is no hæmatemesis or vomiting of food. After a few weeks the patient may be allowed to sit up a few hours and move about slowly, or take a drive when the weather permits it.

As regards diet, it is necessary, where the irritability of the stomach is very great, and where the pain and vomiting occur frequently, to withhold for a few days (three to eight days) all food by the mouth, and feed the patient entirely by nutritive enemata. A mixture of two raw eggs with two ounces of beef-tea, to which, in some cases, a small quantity of brandy (one ounce) may be added, often acts better than peptonized suppositorities. It has been shown by Ewald that the nutritive value of raw eggs in the form of an enema, without the addition of a peptonizing ferment, is considerable. As the patient often complains of great thirst, small quantities of warm water, or of barley-water, or small pieces of ice, may be given by the mouth. After a few days one may commence cautiously with small quanties of food, such as with warm milk, to which lime-water is added, or peptonized milk, peptonized foods, arrow-root, or gruel. The food should be given every two hours, and in small quantities (three to four ounces) at a time. This treatment should be continued for at least three to six weeks, the quantity of food being gradually increased, and the dietary during the last few weeks may be a little varied. Brand's essence, or other similar preparation, may be given with advantage, rice-milk, and (where they are well borne) soft-boiled or raw eggs, or eggs beaten up with milk. Soups of all kinds and beef-tea he has not found useful during the first few weeks of the treatment. In some cases it is necessary that this diet should be continued for months ; often a slight deviation from it gives rise to pain ; in most cases, however, the pain and vomiting have completely subsided after four to five weeks, and then he found that a diet, slightly modified from that proposed by Leube, most useful, comprising milk, with stale bread, water biscuits, peptonized food, mutton or lamb finely minced, but without any spices, boiled chicken, soft-boiled eggs, coca, rice, stewed fruit, sweetbread, oysters. After some months, the patient may take fish, roasted fowl, pigeon, rabbit, game, underdone meat, and, of vegetables, small quantites of potatoes and asparagus ; of fats, butter and cream are best borne. The foods especially to be avoided are fresh bread, strong tea and coffee, cabbage and other green vegetables, beans, peas, and the heavier kinds of meat, all curries, preserves, cheese, sweets and cakes.

Alcoholic stimulants are best avoided. As drink with the meals, warm water, or milk and water, or some of the aerated waters, may be recommended. The dietetic treatment, though the most important factors in the therapeutics of gastric ulcer, has to be supplemented by other measures. For the first few weeks the constant applications of hot poultices to the epigastrium will do much to relieve pain. Acting on the recommendation of some observers, he has used Carlsbad salts early in the treatment of gastric ulcer, but he has so often found patients complaining of pain and discomfort after its administration that he has for the last few years reserved its use for those cases where there is marked gastric catarrh besides the ulcer, and for chronic cases of ulcer, when the acute symptoms have subsided. Instead of Carlsbad salts, he has laterly been in the habit of giving an infusion of senna-pods (eight to ten senna-pods, added to about ten ounces of boiling water ; the water is allowed to cool, and the pods are removed. Usually six or eight hours after this infusion has been taken, a satisfactory action of the bowels follows. Where the pods give rise to griping, or cause an increase of the gastric pain, he gives as aperients simple or glycerin enemata. Of drugs, bismuth and bicarbonate of sodium, are the most useful, and ought to be given in larger doses than are prescribed in the text-books. Where the epigastric pain is very great, Dreschfeld found powders, consisting of fifteen grains of bicarbonate of sodium, fifteen grains of subnitrate of bismuth, and one-twelfth grain of hydrochlorate of morph., two or three times daily, very useful.—Dr. Dreschfeld, in March *Med. Chron.*

TREATMENT OF PHTHISIS BY CREASOTE AND GUAIACOL.

Dr. F. P. Kinnicutt, in delivering the Middleton-Goldsmith Lecture for this year in New York, chose as his subject "New Outlooks in the Prophylaxis and Treatment of Tuberculosis." He considered very carefully the various methods of treatment which had lately been introduced and gave his experience of those he had tried. One of the most interesting series of records are those cases treated by creasote and guaiacol. Dr. Kinnicutt wished to test the practicablity of employing a very large daily dosage of creasote preparations, and to determine, if possible, any advantage which this method might possess over their use in smaller quantities. Several of the patients selected for this treatment presented in a well-marked degree many of the symptoms—namely, hectic, sweats, etc.—attributed to the toxic influence of the products of the bacillus and were therefore well adapted to test the effect of creasote upon such manifestations. A tabulated report is given of seven cases which were treated with subcutaneous injections of guaiacol, rapidly pushed to a daily dosage of one gramme, and five cases with creasote by the mouth, also rapidly increased to *six grammes* daily. In four of the former cases there was little, if any, appreciable change in the physical signs of disease. In one of them, however, the general condition greatly improved, and there was a gain in weight of eight pounds; in one the weight decreased by one pound and three-quarters ; in one there was a loss of four pounds ; in one the weight remained stationary ; in the three remaining cases there was a progressive increase of the pulmonary lesions. No influence upon hectic, when present, was observed. Night sweats, however, were affected favorably. In a single case suffering from chronic nephritis (confirmed by necropsy) a marked increase in the albuminuria was observed when a daily dosage of one gramme was reached. The treatment was then discontinued and the albuminuria gradually diminished. In no other case treated either with guaiacol or creasote did any trace of albumen appear in the urine, although examinations were made every other day. In a single case, where the maximum dose of guaiacol was reached, the urine became dark in color and very similar in appearance to urine containing carbolic acid products. In the cases treated with creasote two exhibited no appreciable difference in the physical signs. In those there had been a gain of one pound and a loss of three pounds respectively. In the three remaining cases there was a progressive increase of the lesions. The effect of a very large daily dose of creasote upon hectic, and sweats corresponded to that noted in the use of guaiacol. Entire tolerance of six grammes (over one and a half drachms) of creasote was exhibited by three of the five patients. One complained of slight gastric discomfort when a daily dose of five grammes was reached. Carbonate of guaiacol was also tried. In addition to possessing the advantage of being tasteless and odourless, it seemed to have a beneficial effect on the appetite. The conclusions which Dr. Kinnicutt formed from a careful study of these cases were: That both creasote and guaiacol in certain forms could be given in very large doses with entire tolerance and without injurious effect; that such doses apparently possessed no advantages over much smaller ones and had no greater effect upon hectic and night sweats; that subcutaneous injections of the drug possessed no advantage over administration by the mouth; that whatever beneficial influence creasote might exert in pulmonary tuberculosis could be effected with a comparatively small dosage; and that favorable results could be expected only by its continuance and prolonged employment.—*Lancet.*

BALDNESS AND ITS TREATMENT.

There are two classes of patients who resort either to the profession or to quacks—generally to the latter—for aid in the production or reproduction of hair in those parts of the scalp or face where it ought to grow, but owing to age or disease fails to do so. There is, first, the youth, who from vanity or a desire to improve his chances of employment, wishes to don before his time those hirsute appendages which are universally regarded as the outward sign of manhood. To him, in spite of the confident assertions of nostrum advertisers, we can offer little beyond the poor consolation of which he is well aware, that time is not only the sure, but almost the only, remedy. No doubt those means which promote an increased circulation in the skin of the face will also promote the nutrition of the hair, and, therefore, but only within narrow limits, increased growth in the more vascularized region. This, doubtless, is to a large extent the *modus operandi* of shaving, which, it is well known, increases the vigor of the hair in the region operated upon. The good effect of the slight irritation of the razor on the callow chin must not, however, be used as an argument for the application of stronger irritants, and the young man, who, in his eagerness to hasten a natural process, painted strong acetic acid on his cheeks in the then approved mutton-chop shape, not only excited inflammatory redness, and brought ridicule on himself, by publishing his youthful yearnings to all beholders, but also, by the inflammatory exudation produced, injured the nutrition of the follicles, and hindered rather than helped forward the growth he so much desired. On the whole, patience, *plus* the adoption of all means which promote general invigoration of the system, and avoidance of excesses of all kinds, is the best advice that can be given to the beardless boy. The second class, apart from those who have a definite disease like alopecia areata, comprises those who are losing their hair prematurely, or even as a result of advancing age, and it is among these that the vendors of hair restorers find a ready market for their wares. It would take up too much space to discuss all the causes of baldness, which may be either of local or general origin, or the two combined; but it is too much the custom, instead of investigating carefully into the general health and circumstances of the patient, and the exact condition of the skin of the scalp, to prescribe a hair lotion, in which may generally be found as the principal ingredient cantharides in some form or other. This, by attracting an increased blood supply to the part, is often useful, no doubt, where the baldness is due to mere sluggishness of the cutaneous circulation, but it fails altogether to reach the cause of that very large class who lose their hair from seborrhœa capitis. This is benefited by microbicide remedies—sulphur, mercurial applications of almost all kinds, and many other antiseptic drugs, both new and old. We do not know what particular microbe, among the legion which may be found in the greasy and dry scales in seborrhœa, produces the proliferation of epithelium, which, according to Unna, is directly due to an inflammatory process; but the effect on the follicle is such that it leads to atrophy of the hair, and if the disease is not arrested atrophy of the whole follicle and consequent permanent alopecia. Where the damage to nutrition is not so great the hair is lustreless and more or less marked canities ensues, and then the hair restorers, which color the hair from without and not from within, are eagerly resorted to. Sulphur and acetate of lead form frequent ingredients of these applications, while perchloride of mercury is too frequently the leading ingredient of a large number of vaunted remedies. No doubt it is of high value as a microbicide when employed in suitable cases, but used indiscriminately for months or even years, injurious effects may be, and sometimes are, produced. Pilocarpine, hypodermically injected, or given internally as tincture of jaborandi, is certainly of value as a direct promoter of the growth of hair, but it is too powerful a remedy for indiscriminate use, and the copious perspirations and sometimes the cardiac depression it induces should keep its employment within narrow limits. Less direct means may be found in tonics of iron, strychnine, quinine, etc.; but more powerful are cod liver oil and change of air, generally to a bracing climate. It will be seen from the foregoing remarks that baldness is a symptom of such diverse conditions that there is no routine treatment for it, but the cause must be carefully sought out and intelligently treated, while the local treatment must be diligently and perseveringly carried out, as when due to its most common cause, seborrhœa, relapses are the rule, and constant watchfulness against recurrence is accordingly required—*Lancet.*

PEANUTS IN THE VERMIFORM APPENDIX; OPERATION; COMPLETE REMOVAL OF THE APPENDIX; RECOVERY.

Emma J., an American, twenty-three years old, was first seen on May 2, 1892, at 5 P.M. She had had a slight chill and pain in the abdomen since early in the morning. She had been feeling well the day before, when she came from her home in the country to her friends in the city. She had always been constipated, but had had two slight bowel-movements in the forenoon. On inquiry, I learned that she had eaten some cherries the evening before, but she was positive that she had not swallowed any of the stones. It was only at a latter questioning that the fact was elicited that she had eaten peanuts two days previously. She felt nauseated, and had vomited once or twice. I prescribed a mixture containing the fluid extract of opium, but without relief. The pain gradually became localized to the right iliac region, and increased in intensity. The temperature was 100.5°, the pulse 96. I made a diagnosis of appendicitis, and administered half a grain of morphine hypodermatically, and ordered warm local applications.

I saw the girl again the following day at 8 A.M. She had rested several hours during the night, but the pain gradually returned, and was again controlled by the administration of quarter-grain doses of morphine. The lower limbs were flexed on the abdomen, and there was great tenderness over the cecum. There was considerable nausea and frequent retching. The temperature was 99.5°, the pulse 96. The warm applications were continued, as well as morphine administered at intervals. At 5 P.M. of this day there was much pain, in spite of the anodyne, and the abdomen was tympanitic, excepting in the region of the cæcum, where there was fatness. The right groin was at this time also a little more elevated than the left groin. Nausea became extreme, and the slightest attempt to move or to raise the head was attended with retching. The temperature was 102°, the pulse 108. The bowels had not been moved since the morning of the preceding day; nor had the patient taken any nourishment. Thirst was marked, but only small quantities of lemonade were retained. The family had been advised of the girl's illness, and some members having arrived, a consultation was proposed.

At 9 P.M. I saw her again, in consultation with Dr. W. H. Earles, who concurred in my diagnosis. The patient was having great pain, with almost constant nausea and retching. The temperature was 101°, the pulse 108.

Operation was advised, but it was decided to wait until morning.

The girl rested some during the night, after full doses of anodyne, but the pain returned. It was now decided to operate, and the conditions being explained to the patient, an intelligent young woman, her consent was obtained. A full dose of morphine was administered, and she was transported to Trinity Hospital. The operation was performed at 11.30 A.M., Drs. Earles and Hoyer assisting. The patient took chloroform badly, and ether was substituted. She ceased breathing several times, and became deeply cyanosed, so that it became necessary to resort to artifical respiration. While under the anesthetic, a circumscribed induration in the right iliac region could be plainly mapped out. An incision was made parallel with, and about an inch and a half internal to, Poupart's ligamant, extending from the level of the anterior superior iliac spine downward for three or four inches, and the seat of the trouble exposed. On opening the peritoneum, some brownish, slightly fecal-smelling fluid escaped. After some search, the appendix was found. It contained two large bodies, and was gangrenous for an inch of its length, having perforated at three points. After the appendix had been removed, it was found to contain two good-sized peanuts. The abdominal cavity was irrigated with sterilized water, the wound plugged with sterilized iodoform-gauze, and an antiseptic dressing applied. The patient's condition at the close of the operation, which occupied about fourty minutes, was critical, but improved after the administration of several hypodermatic injections of brandy. She was placed in bed, and heat applied to the extremities. Morphine was given hypodermatically, in sufficient quantity to keep her comfortable.

The temperature of two days varied between 100° and 102°; the pulse ranged at about 132, and was feeble. The wound was dressed after twenty-four hours, quite a quantity of fecal-smelling fluid saturated the dressings. On the fourth day the temperature and pulse became permanently normal. Absolutely nothing was given for the first twenty-four hours, although the thirst was distressing. After this, lemonade in dram-doses was administered, and, later, milk and lime-water. She improved rapidly, and made a complete recovery. At the date of writing, five weeks after the operation, the girl had left the hospital, and returned to her home in the country, a distance of fifty miles.

My supposition is that the peanuts were shrivelled and small when swallowed, and found their way into the appendix, where, absorbing moisture, they swelled, and, giving rise to strangulation, caused the subsequent trouble.—Dr. M. Rosenheimer, Milwaukee, in *Medical News*.

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EPILEPSIA GRAVIOR OF SIX YEARS STANDING COMPLETELY CURED BY OPENING AND STRAIGHTING THE CERVIX UTERI.—Dr. John Snyder reports the following (*Phys. and Surg.*) :—Miss B. S., a tall, fair young lady, age nineteen years, moderately well nourished, presented herself May, 1891, for relief from very severe epilepsy.

She has been subject to epileptic attacks at night since her thirteenth year--the beginning of her menstrual life. She had started well on the menstrual rhythm and for five months presented no deviations from the normal. But after this period of well-being she became irregular, going sometimes six months or a year without menstruating, and at those rare periods of the flow she would suffer excruciating pain. During this time she fell a victim to epilepsy. The attacks occurred in series until the year preceding her appearance at my office, when she scarcely had any respite from these terrible seizures.

She had consulted numerous medical men, taken untold quantities of patent medicines, and finally ended by drinking the potion sold by an " eminent specialist " in New York city, whose advertisement announces " I cure fits." The probability was she had rung the theapeutical changes from alpha to omega.

Her mental condition was rapidly becoming deplorable. Irritable and morose, she avoided society and all indications pointed to her speedy entrance into that unfortunate class of human beings—the imbecile.

Examination was thorough and was conducted with patient practically nude. Search was made for every conceivable cause of her trouble, and my patience was not rewarded until discovering a pronounced anteflexion of the uterus and a very small cervical canal and uterus somewhat over half normal size. The cervical canal was nearly closed at internal os. Left ovary hyperæsthetic.

The indication for treatment thus became clear. Consequently I enlarged and straightened the cervical canal by passing a knife through the internal os and by introducing a glass tube three sixteenths of an inch in diameter, slightly curved, with a flange on its lower end. This tube was held in position by a borated cotton tampon. The patient was kept in bed one week. She wore the tube three weeks when the canal had healed open. Daily vaginal antisepsis was practiced.

Two weeks after removing the tube she menstrated normally and has been regular ever since. Her epilepsy was cut short as if by magic. She has gained over thirty pounds in weight, and her mental organism has been revolutionized.—*Med. Rev.*

GALVANISM IN ATROPHY OF THE TESTICLES.—Dr. Ernest B. Sangree reports, in the *Philadelphia Times and Register* of July 30th, the following case, illustrating the use of galvanism in atrophy of the testicles :—" Six months ago a man of thirty-five years of age came to me complaining of being generally run down ; in addition to this, informing me that he feared he 'was getting smaller below.' This last rather general statement I took to refer to that appendage of the lower portion of the body which, from many of our male patients, is likely to receive the most consideration, and consequently to be uppermost in the mind, namely the penis. I found, however, on examination that the allusion was to his testicles. These organs had indeed grown exceedingly small, at that time being no larger than very small almonds, and of a flabby consistence, denoting marked degeneration in structure as well as diminution in size. No history of syphilis could be elicited, though he freely admitted being 'one of the boys' for a good portion of his life. He did not go on sprees, but was in the habit of taking three good drinks of whiskey a day. This he stopped at my suggestion. So far he had noticed little or no loss of virile power. A general tonic was given him, and for the special trouble I decided to try galvanism. For the first month the sittings were twice a week ; after that but once a week for two months longer. Sometimes the negative, at others the positive, current was used. As regards the method of administration, the indifferent pole for the time being was attached to a sponge electrode held in the hand, whilst the application to the testicles was made by rapidly touching different portions of the surface with an olive-tipped urethral electrode. As a rule I began with a very mild current, gradually increasing it until a smart stinging sensation was experienced at each touch, and the cremaster muscle firmly contracted. During each application I noticed also that the testicles became considerably larger and firmer. The length of each sitting was about five minutes. After five or six applications it could be easily be seen that the testicles were enlarging, and at the expiration of three months, though the applications had been comparatively few, these organs had grown as large as before; and, indeed, he was rather of the opinion that they were a little larger. Whether this increase was due simply to a proliferation of connective tissue cells or to a natural growth of the proper gland structure I do not know. Probably the former is the case; but if normal spermatozoa were found in his semen, doubtless the latter explanation would be true. Whatever the character of the tissue may be, the result was certainly a pleasant one to attain, one that made my patient on much better terms with the world in general and with himself in paticular.—*Hospital Gazette.*

PROGNOSIS IN ALCOHOLISM —This was the subject of an address by Dr. Thomas Barlow at the closing meeting of the Islington Medical Society· Dr. Barlow took a more favorable view of the prognosis of such cases than is commonly taken, and, indeed, expressed strong disapproval of the mood of pessimism in which such cases are generally regarded. He based his arguments largely on cases of alcoholic neuritis as seen more frequently in women than men. After describing the grave lesions in the nerve structure in such cases, and emphasizing the fact that the healthy structure often returns, and with it the lost function, he proceeded to argue that the lesions of cirrhosis even should not be regarded as incurable. Striking cases of recovery were given by Dr. Barlow, Dr. Stokes, Mr. Teal, and others. The great points in the treatment of such cases were three: first, the entire abandonment of the irritant causing the disease—*i. e.*, alcohol; secondly, good feed. ing and fresh air, and, thirdly, the action of time- —*Weekly Med. Rev.*

THE TOXIC ACTION OF IMPURE CHLOROFORM.—DuBois-Reymond says that the difference found between the physiological action of pure chloroform produced by Pictet's process of refining, as opposed to that of the impure residue from that process, is as follows: (1) No difference was found in the pulse-waves nor in the frequency of respiration; the former being equally affected by both forms of the drug, the latter varying considerably. (2) The pulse-rate, compared in nineteen cases, is higher at the close of the experiments with residue than of those with pure chloroform. (3) The blood-pressure, is by far the greater number of the experiments, at the moment the respiration stops is higher after inhalation of pure chloroform than after inhalation of the impure residue. (4) The residue causes stoppage of respiration much more quickly than pure chloroform.

These experiments, conducted with chloroform refined by Pictet's process, from what is considered pure chloroform commercially, show how necessary is the testing of chloroform before its use, as even the best commercially is impure.—*British Medical Journal.*

THE MECHANISM OF CONCUSSION OF THE BRAIN.—In "Brain," part 1 of Volume VIII, there is a paper by Dr. Alexander Miles supporting and confirming the conclusions published by Duret, that the group of phenomena commonly spoken of as "concussion of the brain" is the result of a temporary anæmia of that organ. This anæmia is the reflex result of stimulation of the restiform bodies, and perhaps of other important centres in the region of the bulb, produced by the wave of cerebro-spinal fluid which rushes through the aqueduct of Sylvius and the foramen of Magendie from the subarachnoid space of the brain to that of the spinal cord when a severe blow is dealt over the skull. In accordance with the laws of hydrostatics this cerebro-spinal wave will disturb the equilibrium of the ultimate nerve cells throughout the nervous system. The hæmorrhages found throughout the brain substance and on its surface are to be ascribed to the recession of the cerebro-spinal fluid, which naturally supports the blood-vessels of the cerebrum. These petechial hæmorrhages are not the proximate cause of the symptoms of concussion, but are rather to be looked upon as an index of the force that produced the injury.—*Jour. of Am. Med. Asso.*

THE LOCAL TREATMENT OF VAGINAL ULCERS WITH ALCOHOL.—Dr. Barsony reports the case of a woman who was admitted to the hospital for operation upon a carcinoma of the vagina. Owing to the overcrowded condition of the hospital, operative treatment was deferred and the author, chiefly for the sake of cleanliness, washed the cancerous sore daily, later twice daily, with alcohol. Eight days later the sore had diminished to such an extent that the operation was again postponed. The ulcer healed completely, but two small sores reappeared which closed up after washing with alcohol. The patient left the hospital cured. In the case of another woman, in which a carcinoma of the vaginal portion of the cervix had been diagnosed, but operation refused, the author resorted to the alcohol washings with success.—*Wien. Mediz. Blatter.*

SYMPTOMS PRODUCED BY ADENOID VEGETATION

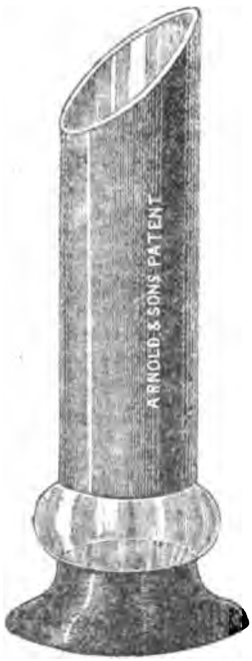
in Young Infants.—Lubet-Barbon reports that in a child of one month the symptoms presented were that it could not breathe while nursing, and while nursing was frequently seized with attacks of coughing. It did not gain in weight, breathed with mouth open, and had a constant muco-purulent discharge from the nostrils. In another case, a child aged sixteen months, there were difficult respiration, mouth breathing, dryness of the lips, the face of violet hue; the respiration was noisy, hoarse, frequent, such as to closely simulate the respiration in a case of croup. The child has never been able to take the breast nor nursing bottle, but had been fed from a glass. Cough was frequent and often caused vomiting. In another case there was considerable emphysema. Four cases was reported. In all the treatment consisted of removing the growth by means of forceps of a particular model. The operation was performed at several sittings. In all complete recovery or great improvement followed.

Medical Education of Women in Glasgow.—The experiment made by the directors of the Royal Infirmary in opening certain of their wards for the clinical teaching of women has turned out a failure, and the governing authorities of the infirmary and also those of St Mungo's College have now determined to exclude females both from the wards and from the college classes. It is about two years since the students of Queen Margret College were granted facilities for obtaining clinical and pathological instruction in the infirmary, and at the same time the ladies attending medical classes in St. Mungo's College and other lady "medicals" were afforded the same opportunities, the Queen Margaret students, however, having their instruction separately, while the others attend mixed classes both in college and in the wards. The arrangement, however, has come to grief over the dispensary question, it having been found inconvenient, if not impossible, to carry on the very essential dispensary work of the curriculum either in mixed classes or separately, the objection to mixed dispensary classes having come, not from the women, but from the male students. To get over this deadlock the managers have decided to exclude ladies at once from St. Mungo's College and from the wards, the only exception made being in favor of Queen Margaret students, who will be permitted to attend pathological and clinical classes till the end of the summer session of 1893. All this comes as something of a shock to the friends of medical education for women in Glasgow, as unless some new arrangement is speedily made such teaching must come to an end in this city. Queen Margaret College in particular will be in a difficulty and will specially feel the hardship; it has been prospering to the satisfaction of its friends, and has only recently been affiliated to Glasgow University, which has taken over its buildings and endowments and with them all duties and responsibilities. Amongst other things it must provide clinical facilities for its lady medical students, and at first sight it is not easy to say where these are to be found.—*Lancet.*

A noted French physician claims to have got good results in goitre from tincture of strophanthus ten to sixteen drops three times a day.

SELF-RETAINING CYLINDRICAL SPECULUM.

The cylindrical form of vaginal speculum is the one most universally used, and Ferguson's, with mirrored surface, being cleanly, moderate in price, and affording a good view of the os and cervix, seems to be the favorite (at least with the general practitioner). The main objection to this valuable speculum is its extreme fragility, and that if left unheld after introduction it is very liable to be extruded by contraction of the vaginal walls and, if falling from the bed or couch, to be broken. The illustration represents a modification which, if the proper sized speculum be chosen, renders it self-retaining. It consists of a bulbous expansion at the outer end, which is to be introduced within the vagina; owing to its increased calibre and the sulcus around it the sphincter vaginæ muscle is enabled to hold the instrument, thus setting free both hands of the practitioner. The bulbous expansion has also another advantage—that is, the concave surface forms a trough which will catch any small quantity of caustic fluids (carbolic acid, for instance) which might otherwise find its way downwards and burn or stain the external parts of the patient's clothing. This form of speculum will be found in practice a great improvement on the older form if only for the reasons given. The makers are Messrs. Arnold & Sons, who have carried out the idea to my complete satisfaction.—Alexander Duke, in *Lancet.*



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THE TREATMENT AND MANAGEMENT OF ASTHMA.

In a very interesting lecture recently delivered to the class in the Philadelphia Polyclinic, by Dr. Thomas J. Mays, Professor of Diseases of the Chest in that institution, the speaker took the ground that asthma is a paroxysmal disease of the pneumo-gastric nerves, which throws the muscular fibres into spasmodic contraction. Its prominent symptoms are itching of the head and neck, oppression and tightness of the chest, dyspnœa, bloating of the abdomen, pain in the region of the diaphragm, cough, expectoration and fever. Its causes are predisposing and exciting. (1) It may be inherited as asthma, and it may appear in children who come from consumptive or nervous families. It seems as if there is a predisposition necessary before the disease can develop. (2) Among the exciting causes are the inhalation of dust, powered ipecacuanha, pollen of grasses and of roses odors of certain animals, as cats, sheep, etc.; reflex excitation coming from the nose, stomach, liver, intestines, uterus, etc. Its relation to hay fever is very close. Practically there is no difference between the two. He finds that that which relieves the one will also relieve the other.

Its treatment resolves itself into that (1) which aims to give immediate relief from the paroxysm, and (2) that which aims to prevent a recurrence of the paroxysm. Those remedies which relieve the paroxysms may be classified as follows: (1) Central narcotics, consisting of morphine, belladonna, stramonium, hyoscyamus, tobacco, chloroform, ether, ethyl, bromide, etc.; (2) emetics, consisting of lobelia, ipecacuanha, sanguinaria, etc.; and (3) the peripheral narcotics or relaxants, consisting of nitro-glycerin, amyl nitrite, sodium nitrite, pilocarpine, etc. Now all our more or less powerful therapeutic agents are stimulants to the general or special bodily tissues which they affect, in small doses, while in large doses they paralyze the same. All the above named agents only relieve asthma when given in large or paralyzing doses, the central narcotics exerting their influence on the central nervous system, the emetics acting on the pneumogastric filaments, while the peripheral narcotics paralyze the vasomotor or sympathetic nerves which supply the unstriped muscular fibres of the bronchial mucous membrane and blood vessels. While all these agents relieve asthma, and indeed in some cases are indispensable, it is quite clear that in doing so they lower or depress the functions of the parts on which they act, and that they do not, therefore, come up to the ideal of an asthmatic remedy. The best among them are nitro-glycerin, one or two minums of a one per cent. solution every three or four hours, by the mouth, and $\frac{1}{20}$ or $\frac{1}{10}$ of a grain of morphine hypodermically once or twice a day.

What then is the remedy which may be given continuously for the alleviation of this disease, and without the undesirable effect of the above named classes? What drug will relieve asthma in stimulant does? Such a drug, he believes, we possess in strychnine. Of course we must bear in mind that all stimulants are only supplementary agents which maintain the functions of the body without any direct material support to the same; but there is also good reason for believing that they cause the tissues to appropriate a larger amount of nutritive material than they would otherwise do, and in this way our stimulant drugs become tissue builders. It has been shown that the power of strychnine in this respect is greater than that of any other stimulant. This drug has a special affinity for the nervous system, which action is especially accentuated on the respiratory centre and pneumogastric nerves. In stimulant doses it gives a supporting influence to the respiratory movements, and, unlike morphine, lobelia, belladonna, or nitro-glycerin, it does not depress or narcotize the nervous system. Asthma, being a spasmodic disease, in what manner does strychnine bring relief? How does it act as an anti-spasmodic? The most probable theory of the spasmodic state is that there is, at the beginning of the paroxysm, a super-abundant discharge of nerve force through the pneumogastric nerves which throws the bronchial muscles into contraction. But whatever the intimate nature of this condition may be it is evidence of nerve degradation or nerve weakness, and strychnine, by elvating the tone of these nerves, increases the controlling power of the same.

A stimulant dose of strychnine will depend on the age of the patient, and the length of time during which the drug has been given, although asthmatics, as a rule, will bear larger doses of strychnine than most other patients. Begin, as a rule, with $\frac{1}{30}$ of a grain subcutaneously once a day, and gradually increase to $\frac{1}{20}$ or to $\frac{1}{10}$ of a grain, or more, if necessary, to impress the system with its full stimulant effects. Do not waste your time with small doses. To these amounts of strychnine small doses of from $\frac{1}{400}$ to $\frac{1}{600}$ of a grain of atropine may be added. It is best to administer these drugs in the evening, because asthma is noctural in its attacks, and your patient should be protected at night so that he can sleep Additionally to its hypodermic use, this drug may be given in the following combination:

℞.—Phenacetini, ... gr. lxiv.
Quinæ sulph., ... gr. xxxii.
Ammon. muriat, ... ʒ iss.
Pulv. capsici., ... gr. iv.
Strychninæ sulph., ... gr. $1\frac{1}{8}$.
M.—Ft. capsulas, No. xxxii.
Sig.—One capsule four times a day.

Or in the following:

℞.—Strychninæ sulph., ... gr. $1\frac{1}{8}$.
Syr. acid. hydriodici, ...
Syr. hypophosph. . . . . āā ℥ iss.
Sig.—One teaspoonful four times daily.

In fact, light cases of asthma require no hypodermic injections, and do well enough where the above-named preparations are given. In severe cases it is, of course, advisable to add morphine or nitro-glycerine to the strychnine and atropine treatment, especially at the beginning. This treatment will break up the paroxysms, but even after they are broken, many old asthmatics still remain in the most abject misery. They may be compelled to sit up day and night, panting for breath, and still labor under the impression that they are suffering from asthma. This is a mistake, it is not asthma, but the natural state of exhaustion which follows asthma. The respiratory movements as well as the whole nervous system are almost completely paralyzed. It is the disorder and chaos following the flood. The dyspnœa is not paroxysmal as before, but is felt now on the slightest exertion. This stage of the disease is most important from a therapeutic standpoint. Nitro-glycerine, lobelia, and other narcotics are of no use. Rest is essential now; they must do absolutely nothing; lie down if they can, or sit still. I have known patients who were breathing comfortably, bring on a most severe exhaustion-dyspnœa by merely undertaking to write a letter. During the rest-treatment give food of the most nourishing character, such as freshly expressed beef juice, a cupful a day, beef powder, beef, mutton, milk, oysters, clams, etc. In this stage strychnine is also of the greatest value; massage is also to be used in desperate cases. Electricity is also of great service, so are rarefied air and calisthenic exercises, obtained in the pneumatic cabinet-treatment. To procure sleep at night morphine may be added to the hypodermic injection of strychnine.

Success in treating asthma depends as much on the proper management of the individual as it does on the administration of drugs in the proper doses, and at the proper time. Principles can only be carried out by paying attention to details, hence each patient must be under the complete control of his physician in regard to his food, medicines, exercise, and everything else. This pertains particularly to old asthmatics who are constant sufferers. If the instruction which is given this evening is closely followed, there are very few cases which will not yield to it; and, as an illustration of what may be done in desperate cases, I will conclude by relating the condensed histories of the two following cases, the second of which is still under occasional observation:

Case I.—A, aged 46, a sufferer from asthma for thirty-five years—the attacks becoming more frequent and severe during the last three years. For four weeks before coming under observation, he had been unable to lie down on account of his disease. The injection of strychnine, gr. $\frac{1}{25}$ and morphine, gr. $\frac{1}{16}$ gave him almost immediate temporary relief. The morphine was discontinued after the second day, and one minum of a one per cent. solution of nitro-glycerin every four hours was substituted. The strychnine was gradually increased, and the nitro-glycerin omitted in the course of a week. Additionally he was kept quiet, received nourishing food and strychnine by the mouth. In three days he was able to lie down, and in ten days more the asthma ceased.

CASE II.—B, aged 50, an asthmatic for twenty-five years. Daily attacks for one year, during which time he had been unable to lie down, day or night. Came under observation six weeks ago, and received about the same treatment as the previous case. The relief was prompt after each injection, but this had to be continued nightly for five weeks to keep the stubborn disease in abeyance. In two weeks he was able to lie down, and is now practically well.

MATTEI'S CANCER CURE (?)

Some few years since a certain Count Cesare Mattei published a work on what he termed electro-homœopathy, a new system of medicine based upon a most fantastic theory of vegetable electricity. This work went through many editions, and was translated into German, French and English.

An old castle that he occupied in Italy speedily became the Mecca of many invalids suffering from all sorts of complaints, and the Count pursued his studies and prepared his medicines in a secret room, in an isolated tower that was filled with warlike utensils as well as the peaceful accessories of science. The reason of this was, the Count was apparently in fear that his remedies would be wrested from him.

His pretensions impressed many educated people. Lady Paget, and Mr. W. T. Stead have separately published papers in English periodicals advocating his methods, especially that of curing cancer without the aid of the knife, which of course, always appeals to the credulity of the general public. An investigation committee, consisting of the late Sir Morell McKenzie, Mr. Lawson Tait and Dr. G. W. Potter, was appointed by the British Medical Association, and the later gentleman publishes its report in the *British Medical Journal* for August 13th. It is stated that the doctrines of Mattei were being propagated to such a large extent in England, where it was practised even by regular medical practitioners, that the committee, while never doubting the ultimate results of their investigations, considered it necessary to give the matter serious and careful attention.

The Matteists declined to inform the gentlemen of the committee of the composition of their remedies, and it was assumed that it was not to treat cases, but to see cures and admit their accomplishment, that the committee came. While it was affirmed that cancer would be cured, if still in the "first or second stage," yet patient after patient sent in by the committee was refused upon one ground or another.

This put Mr. Stead in the position of having to expose the Matteists in his journal, the *Review of Reviews*, if they continued to refuse to treat the patients sent in, so they were obliged to accept five, out of a large number having cancer of the breast, submitted for experiment. The patients were carefully watched from week to week for a year; and the members of the committee, in turn, regularly inspected them and noted their progress.

When Sir Morell McKenzie died, Mr. H. A. Reeves and Mr. John Hopkins were added to the committee. The patients grew gradually worse, just as if no treatment of any kind had been tried. The Matteists tried in various ways to bring the examination to a close by accusations against the gentlemen above named of having broken one of the rules of the committee, and at last were successful in so doing.

The committee consider Matteism, "to consist exclusively of vulgar, unadulterated, unredeemed quackery." An analysis of the "electricities" so called, yielded no other reaction than that of simple distilled water, and the result of their administration confirmed this analysis. The report concludes as follows: "The savage trusts to his armlet; the civilized man, both in the upper and lower circles, submits himself with childish, if not child-like, simplicity to the pretences of the quack. It is a strange world; but, such as it is, open and honorable medicine has to live in it, and work in it, and must make the best it can of so wonderfully varied an environment."

THE FIRST PAN-AMERICAN MEDICAL CONGRESS.

The Americans always do anything of a national character on a grand scale, as befits so great and progressive a nation. The preliminary announcement of the above Congress, to be held at Washington, Sept. 5th, 6th, 7th and 8th, 1893, is an evidence that it will be a great meeting.

A goodly number of Canadians are named as officers. Dr. J. F. W. Ross, Toronto, is our representative on the Executive Committee. In the Section on Medicine, Dr Moorehouse, London, is Secretary; Section on General Surgery, Secretary, Dr. F. G. Roddick, of Montreal; Section on Military Medicine and Surgery, Honorary Presidents, Surgeon-General Bergin, of Cornwall, and Surgeon Strange, of Toronto; Section on Obstetrics, Honorary President, Dr. Adam H. Wright, of Toronto; Secretary, Dr. J. C. Cameron, of Montreal; Section on Gynecology and Abdominal Surgery, Honorary President, Dr. James F. W. Ross, of Toronto; Section on Therapeutics, Honorary President, Dr. A. D. Blackader, of Montreal; Secretary, Dr. J. L. Davison, of Toronto; Section on Anatomy, Dr. F. L. Shepherd, of Montreal; Section on Physiology, Honorary President, Dr. Wesley Mills, of Montreal; Secretary, Dr. A. B. Macallum, of Toronto; Section on Diseases of Children, Honorary President, Dr. A. D. Blackader, of Montreal; Section on Pathology, Honorary President, Dr. L. D. Mignault, of Montreal; Secretary, Dr. John Caven, of Toronto; Section on Ophthalmology, Secretary, Dr. G. H. Burnham, of Toronto; Section on Laryngology and Rhinology, Honorary President, Dr. Stephen Dodge, of Halifax; Secretary, Dr. G. W. Mayor, of Montreal; Section on Otology, Honorary Presidents, Dr. J. C. Connel, Toronto, Dr. Stephen Dodge, of Halifax, Dr. J. W. Good, of Winnipeg, and Dr. G. Sterling Ryerson, of Toronto; Secretary, Dr. D. G. Wishart, of Toronto; Section on Dermatology and Syphilography, Secretary, Dr. J. E. Graham, of Toronto; Section on Hygiene, Climatology, and Demography, Honorary Presidents, Dr. E. P. Lachapelle, of Montreal, and Dr. F. Montizambert, of Quebec; Section on Marine Hygiene and Quarantine, Secretary, Dr. J. J. Cassidy, of Toronto; Section on Orthopædic Surgery, Secretary, Dr. B. E. McKenzie, of Toronto; Section on Diseases of the Mind and Nervous System, Honorary President, Dr. Joseph Workman, Toronto; Secretary, Dr. Stephen Lett, of Guelph; Section on Oral and Dental Surgery, Honorary President, Dr. J. B. Willmott, of Toronto; Secretary, Dr. Luke Teskey, of Toronto; Section on Medical Pedagogics, Honorary Presidents, Dr. Fife Fowler, of Kingston, Drs. Walter B. Geikie and Adam H. Wright, of Toronto; Section on Medical Jurisprudence, Secretary, Dr. N. A. Powell, of Toronto; Section on Railway Surgery, Secretary, Dr. J. G. Roddick, of Montreal.

Auxiliary Committees, one formed for each State and country. For Canada we have Dr. Jas. F. W. Ross, Toronto; Dr. John L. Bray, Chatham; Dr. James E. Graham, Toronto; Dr. H. P. Wright, Ottawa; Dr. Herbert S. Griffin, Hamilton; Dr. Vincent H. Moore, Brockville; Dr. Charles E. Barnhart, Grey; Dr. Walter H. Moorehouse, London; Dr. J. L. G. McCarthy, Barrie; Dr. John Bostwick Lundy, Preston; Dr. Howitt, Guelph; Dr. Henwood, Brantford, Dr. Boucher, Peterboro; Dr. Wm. H. Henderson, Kingston; Dr. Taylor, Goderich; Dr. Eakins, Belleville; Dr. D. S. Bowlby, Berlin; Dr. D. H. Moore, Brockville; Dr. Robt. Astley Corbett, Port Hope; Dr. J. G. Scott, Seaforth; Dr. Albert B. Welford, Woodstock; Dr. Francis E. Shepherd, Montreal; Dr. F. J. Austin, Sherbrooke; Dr. Eusebe Napoleon Chevalier, Iberville; Dr. E. P. Lachapelle, Montreal; Dr. M. J. Ahren, Quebec; Dr. R. A. D. King, Compton; Dr. J. A. Hamel, Riviere; Dr. E. Gervais, Three Rivers; Dr. W. S. Muir, Truro; Dr. A. D. MacGillvary, South Sidney; Dr. John C. McDougall, Amherst; Dr. W. H. McDonald, Antigonish; Dr. John Stewart, Picton; Dr. H. B. McPherson, North Sidney; Dr. Willis B. Moore, Kentville; Dr. C. J. Gossip, Windsor, N.S.; Dr. D. A. Campbell, Halifax; Dr. Augustus Robinson, Annapolis; Dr. Miller, New Glasgow; Dr. Farrish, Liverpool; Dr. Chown, Winnipeg; Dr. J. A. Macdonald, Brandon; Dr. Robert Wilson, Morden; Dr. J. Z. Currie, Fredericton; Dr. Murray McLaren, St. John; Dr. John S. Benson, Chatham; Dr. H. B. Chandler, Moncton; Dr. Ferdinand L. Pedolin, New Castle; Dr. Alfred Harvey, St. John, Nfld.; Dr. J. H. C Willoughby, Regina.

GOLDEN RULES OF SURGICAL PRACTICE—*Continued.—(Times and Reg.)*:

OPERATIONS.—Never permit a naked light to approach the ether apparatus in anæsthetizing. Never neglect in all operations which will produce a shock to the urinary system—*e. g.*, varicocele, fistula, piles, radical cure of hernia—to ascertain, before the operation, if the urthera canal be without stricture, for sometimes stricture is found in relieving retention after operation, and you may be unprepared for the obstruction.

Never neglect to examine the lungs in all cases of ischio-rectal disease and fistula in ano.

In inserting plugs or plug appliance, for colotomy, gastrostomy, or drainage tubes for abscesses, or wounds, especially in thorax, always see that the end of the plug or drain is properly secured.

Never operate without first examining the urine for albumen and sugar.

Never apply an elastic (Esmarch) bandage to render a limb bloodless if tuberculosis or gangrene is present.

Never forget a patient's age in years is not the index to his " vis " or " last." *Vide* " Errors in the Chronometry of Life," " Paget's Old Note Book."

PELVIS.—Never forget to determine the absence of a foreign body in buttock wounds.

Always ligature a bleeding vessel in the buttock at once, even at the risk of a deep dissection.

In fracture of true pelvis do not carry out passive movements very actively, in order to elicit crepitus.

Remember the serious consequences which may ensue from the displacement of a pointed fragment

In falls on the buttock or rump in fractured pelvis, or blows in the belly, never omit to empty the bladder, if the patient cannot.

RECTUM.—Never forget in fistula in ano to eliminate tertiary syphilitic, strumous, or dysenteric ulceration, stricture and malignant disease of the rectum.

Remember the saying, " No internal opening to a fistula, or a blind fistula is usually a blind surgeon."

Do not forget the probable need for a catheter after an operation on the rectum.

SHOCK.—In shock and collapse never forget that the essence of successful treatment is to obtain time for your patient to rally. Keep the heart going, but do not trade on its exhausted power ; maintain its action, do not force it.

SINUS.—Never neglect the hint the guardian papillæ give of the irritating focus deeper down.

Never neglect the therapeutics of rest.

Never neglect to slit the forks and the burrows up as well as the sinus.

SPINE.—Never forget that in fracture of the spine the tendency to death is due to pneumonia and complications, if the fracture is situated high up, and to urinary inflammation and bedsore, if lower down.

Therefore never forget the atonic bladder or the back. The urethra is insensitive, therefore use your catheter with care and gentleness ; let it be clean and smooth.

Never neglect to see for yourself that the back has been kept clean.

Never puncture a spina bifida in the median line, always at the side, taking in the skin ; *avoid* air, and close puncture securely.

Never suspend by the head alone in adjusting a Sayre's jacket for Pott's curvature of the spine ; let the toes and armpits help to support the weight.

Never forget that the earlier stages of caries are not accompanied by any decided symptoms. When curvature exists there is no longer room for doubt, but do not wait for curvature.

Never permit a patient who has sustained an injury to the back to quit the casualty department until he has passed water. [Bloody urine will show at once that the kidney has been injured.]

TREATMENT OF CHLORISIS.—Dr. Schubert, in *Rev. de Therap. gen. et Thermale* (*Med. Brief*), says : The treatment may seem paradoxical, however, the author has many times established a clear amelioration in chloretics following epistaxis or hematemesis. Dyes was the first to restore this method. Having been called to attend a woman with grave chlorosis, whose death was hourly expected, Dyes, after considerable hesitation, decided to take about three ounces of blood from a vein. The effect was striking ; at the end of some days she was greatly improved ; after five weeks of treatment her face had regained its color, and since then, she has given birth to four children. Wilhelmi has published thirty cases of chlorosis treated by bleeding, and he concludes that the more nearly the chlorosis approaches the typical form the stronger is the indication for the operation, and the more striking the results. Schultz has, for a score of years, employed diaphoretics in the treatment of chlorosis, combined with laxatives and blood-letting. After the bleeding the patient should rest in bed for twenty-four or forty-eight hours, and be given acidulous drinks, and be allowed to eat at will. The consecutive effects are, according to Schubert, abundant perspiration, a feeling of hunger, sleep, and a sense of well-being. At the time of bleeding the patient should be lying down in bed ; immediately after, favor the diaphoresis.

Gynæcological Work among Insane Women.—Dr. George H. Rohe of Catonsville, Md., read a paper upon "The relations of Pelvic disease to Physical Disturbances in woman." The author pointed out the frequency with which bodily conditions influenced mental states. Thus a torpid condition of the intestines, Bright's disease, putrefactive processes in the intestinal canal, etc., might give rise to melancholia and other disorders of the mental functions. It is not irrational to suppose likewise that diseases of the femal sexual apparatus would have a not inconsiderable influence in the production or perpetuation of mental disorders as a contribution to the knowledge of the subject the following report was submitted. In a hospital containing 200 insane women, 35 were subjected to vaginal examination and 26 found with evidences of pelvic diseases. In 18 of these the uterine appendages were removed with the following results : Sixteen recovered from the operation and two died. Of the sixteen recovered, three have been discharged from the hospital completely restored, both physically and mentally. In 10, considerable improvement followed the operation in both physical and mental conditions, and in three the operation was of too recent a date to allow any definite expression of opinion. The mental disorder present in the 18 cases was melancholia in six cases, simple mania in one, puerperal mania in four, hysterical mania in one, periodic mania in two, hysterro-epilepsy with mania in one, and epilepsy with mania in three. The author basing his opinion upon his experience, concludes as follows : "The facts recorded demonstrate, first, that there is a fruitful field for gynæcological work among insane women ; second, that this work is as practicable and can be persued with as much success in an insane hospital as elsewhere ; and, third, that the results obtained not only encourage us to continue in the work, but require us, in the name of science and humanity, to give to an insane woman the same chance of relief from disease of the ovaries and uterus that a sane woman has."

Puerperal Insanity.—In closing an article upon this important theme (*Jour. Am. Med. Assoc.*) Dr. Rohe, of Baltimore, says :

Time is lacking to review here in the unsatisfactory theories that have been propounded to account for the origin of puerperal insanity. I offer here no theory, but submit the cases which I believe justify the following conclusions :

1. Puerperal insanity is, in at least the large majority of cases, an infection psychosis.

2. Without rejecting the influence of other factors, such as heredity, anæmia, exhaustion, mental shock and distress, careful observation will show that few cases of puerperal insanity occur without preceding or coincident puerperal ininfection.

The reasons for this opinion may be briefly summed up as follows :

1. Puerperal insanity occurs in the great majority of cases within the first ten days after delivery—about one-half in the first five days—the same period during which puerperal infection usually occurs.

2. It is usually accompanied by elevation of temperature and other evidences of febrile disturbance.

3. The clinical form in which puerperal insanity manifests itself is, in the majority of cases, that of acute, delirious, or confusional mania. Depressive states are rare except as secondary forms. In other words, the most frequent condition is one most closely resembling febrile delirium.

4. The death-rate is much higher than in simple mania. Death occurs from exhaustion, usually with high temperature and rapid pulse.

5. Post mortem examinations, though apparently infrequent in these cases, have shown grave involvment of the pelvic viscera.

6. Examinations of the pelvic organs during life

show lacerations of the perineum and cervix uteri (facile channels of infection in the puerperal woman). As secondary conditions are found intrapelvic (peritoneal) inflammations, and consequent abnormal locations, fixations and congestions of the uterus, tubes and ovaries.

7. The results of operations seem to show that removal of local sources of irritation increases the chances of recovery from the mental disease.

SANITATION AND HYGIENE AT THE WORLD'S FAIR.—The Bureau of Hygiene and Sanitation of the World's Columbian Exposition has been organized to prepare a collective exhibit illustrative of the present condition of sanitary science. Starting from the standpoint that "the common health is the common wealth" and that hitherto sanitation and sanitary science have not received that amount of general public support which their importance demands, the Bureau will seek to set before the visitors to the Exposition such a representation of sanitary work and sanitary aid as will help to lift the general mind to a higher plane in its estimate of the work of sanitation. Not even the most exaggerative optimist would assert that the sanitary arrangements of our chief and best-cared for cities are perfect, while it is well known that those of smaller towns and villages are of the most reprehensible type. On the other hand the pessimist cannot deny that the last two decades have seen very great and very marked improvements in the theory of hygiene as a science and in its practice as an art; the "vantage ground" thus gained, it is to be hoped, will be but a new base from which a more general and complete advance all along the line may be made.

URINARY GRAVEL.—Dr. E. Golovine, a Russian physician, is convinced (*Med. Abstract*) from a number of observations he has made, that the prolonged use of a mixture of equal parts of calcined magnesia and prepared chalk gives the best results in gravel and nephritic colic. With this mixture, in doses of two teaspoonfuls three times a day with the meals, without any alteration in the diet, he has obtained the rapid suppression of the deposits of urates and oxalates in the urine; the disappearance of the neuralgia of the sciatic nerve, so frequently seen in these cases; and the paroxysms of nephritic colic, formerly common, no longer appear. M. Golovine explains the favorable action obtained on the hypothesis that the chalk and magnesia, combining with the phosphoric acid, set at liberty a quantity of soda sufficient to neutralize the uric acid.

APPENDICITIS AND ITS TREATMENT.—Prof. A. Iverson, of Copenhagen (*Thesis*), relates two successful cases where the patients exhibited the well-known symptoms of perforation of the vermiform process, where the removal of the appendix vermiformis was performed. The appendix had a thickened and inflamed wall, was fixed to the environs by peritoneal adhesions, and contained muco-purulent fluid. The author recommends the removal of the vermiform process (1) when symptoms of inflammation of this organ recur several times, (2) when there are signs of distension of it from pus, and (3) in cases of intra-peritoneal abscess.

THE TREATMENT OF PLEURISY.—M. Trasbot contributes a very interesting paper (*L'Abeille Med.*) to the discussion at the French Academy of Medicine, treating the subject from the standpoint of the veterinarian. He concludes that: 1. The sero-fibrous pleurisy of animals has nothing in common with tuberculosis. 2. Frequently the relation between its development and chilling is indisputable. 3. It is impossible to liken the sero-fibrinous pleurisy of the horse to an eruptive fever, or to a cyclic disease. 4. Antiphlogistic medication and derivative applications surely exercise an advantageous action. 5. Thoracentesis can be done without danger to the horse, and constitutes a measure to which we may have recourse before the effusion gives rise to asphyxia.

RATIO OF PHYSICIANS TO POPULATION.—Dr. P. H. Millard, of Minn., in a paper recently read before the American Academy of Medicine (*Coll. and Clin. Rec.*), gave the following as the ratio of physicians to population in various parts of the world:—

Sweden	1 to 7,000
Italy	1 to 3,500
Germany	1 to 3,000
Austria-Hungary	1 to 2,400
France	1 to 2,000
United States	1 to 600

Laryngismus Stridulus.—*Nouveaux Remèdes* recommends the following:

R—Chloroform . . . . 5 to 10 drops.
Water . . . . ʒ vi.
Glycerine . . . . ʒ ii.
Sig.—Teaspoonful every half hour.

Dr. Lapthorn Smith, of Montreal, was elected a Fellow of the American Gynecological Society, at its recent meeting in Brooklyn.

Books and Pamphlets.

The Medical News Visiting List for 1893 has been thoroughly revised and brought up to date in every respect. The text portion (32 pages) contains the most useful data for the physician and surgeon, including an alphabetical Table of Diseases, with the most approved Remedies, and a Table of Doses. It also contains sections on Examination of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, Diagnostic Table of Eruptive Fevers and the Ligation of Arteries. The classified blanks (176 pages) are arranged to hold records of all kinds of professional work, with memoranda and accounts. Four styles are now published: Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month, and good for any year); Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). This last style consists of 256 pages of assorted record blanks, without text. *The Medical News Visiting List* adapts itself to any system of keeping professional accounts. Each style is in one volume, bound in handsome red leather, with pocket, pencil, rubber, and catheter-scale, price $1.25. When desired, a Ready Reference Thumb-letter Index is furnished, which is peculiar to this Visiting List, and will save many-fold its small cost (25 cents) in the economy of time effected during a year. In short, every need of the physician seems to have been anticipated in this work.

Leonard's Physician's Pocket Day-Book, bound in red Morocco, with flap, pocket, pencil-loop and red edges. Price, post-paid, $1. Published by *The Illustrated Medical Journal Co.*, Detroit, Mich.

This popular day-book is now in its fifteenth year of publication. The front part of it is occupied with dose tables, and other useful pocket memoranda. It is good for *thirteen months*, from the first of any month that it may be begun, and accommodates daily charges for 50 patients, besides having cash department, and complete obstetric records. There are also columns for the diagnosis of disease, or for brief record of the treatment adopted, following each name-space. Name of patient needs to be written but three times in a month. The book is 7½ inches in length and is 3½ inches wide, so that it will carry bill-heads or currency bills without folding. It is bound in flexible covers, *and weighs but five ounces*, so that it is easily carried in the pocket.

Over 1,000 Prescriptions and Favorite Formulæ from Authors, Professors and Practising Physicians. Cloth, 12 mo., post-paid, $1. *The Illustrated Medical Journal Co.*, Detroit, Mich.

The various formulæ contained in this volume are *practical prescriptions* of new and old remedies for the various types of disease that affect mankind. *They are the favorite ones*, of the various authorities, for the diseases indicated. The *Index* is full and complete, thus rendering the whole book easy of access. The volume is copiously interleaved, so that on the blank pages can be recorded, by pasting or copying with pen or pencil, any other prescription suitable for any disease that is on the opposite page of the book; the complete index thus indexes each new formulæ you may see fit to copy into the pages of the volume. The whole is comprised in a handy cloth-bound volume of nearly 300 pages, and will be mailed to any address upon receipt of its price by the above publishers.

Manual of Practical, Medical and Physiological Chemistry, by Chester E. Pellew, E.M., Demonstrator of Physics and Chemistry in the College of Physicians and Surgeons, New York, etc. With illustrations, pp. 314. New York: D. Appleton & Co. 1892. Toronto: Carveth & Co.

This is an excellent work for students who should, although they do not always, take a course with not too much pure chemistry. The author seems to have appreciated the necessity of making his work fit in with the medical student's other studies, every subject and every test having some relation to such other work. The lessons deal with physiological chemistry, with the food-stuffs and their products of assimilation with the different fluids and tissues of the body. Much attention has been given to the latest chemical tests, *e. g.*, breast-milk and gastric juice. The work seems practical and in the right direction for medical students.

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